9. ORIGINAL 9

No. 2 of 1958

IN THE HIGH COURT OF AUSTRALIA

YOUNG

v.

PAVY AND OTHERS

ORIGINAL

REASONS FOR JUDGMENT

Judgment delivered at Sydney

on Tuesday, 16th December 1958

W. M. HOUSTON, Govt. Print., Melb.

C.1978/55

YOUNG

v.

NARACOORTE DISTRICT HOSPITAL INC.
AND OTHERS

ORDER

Appeal dismissed with costs.

YOUNG

v.

THE NARACOORTE DISTRICT HOSPITAL
AND OTHERS

JUDGMENT DIXON C.J.

YOUNG

v.

THE NARACOORTE DISTRICT HOSPITAL AND OTHERS

The appeal in this case depends upon a question of fact. The action from which it arises is that of an infant suing by his next friend to recover damages for personal injury suffered through negligent surgical treatment. The defendants are the Naracoorte District Hospital and three medical practitioners who while the child was in that hospital as a patient treated him or attended to him. He was admitted to the hospital suffering from a compound fracture of the bones of the left forearm. In the action he complains that by reason of some want of care or skill on the part of one or other or all of the three medical practitioners who are defendants he sustained a Volkmann's ischaemic contracture of his left hand. The contracture involves an almost complete loss of the usefulness of his hand which has assumed a claw-like state with an inability by ordinary control to straighten the fingers or grip with them. Such a condition arises from an interruption of the arterial blood supply to the belly of the muscles concerned, in this case of the forearm; the tissue dies; it becomes fibrous and contracts and with this there may be associated a degeneration of the nerve trunks and a nerve paralysis.

The action was tried by Reed J. who found for the defendants.

Naracoorte is a town in the south-east of South Australia possessing a hospital incorporated under s. 43 of the Hospitals Act 1934-1952 (S.A.) and supported, in part at all events, by contributions from the municipality under Part IV of that Act. It is the defendant hospital. There is a committee under which the hospital is managed and maintained. The staff includes nurses but not surgeons or physicians;

there is no medical staff. Medical practitioners send their patients to the hospital and there treat them. The plaintiff's case as presented in his pleading contains an allegation that on 24th July 1954 he suffered a compound fracture of both bones of the left forearm and on that day was admitted as a patient to the Naracoorte District Hospital and that that defendant agreed and undertook to provide such medical and nursing attention as was necessary to the plaintiff.

In Naracoorte there was a medical partnership which relied on the hospital and upon which perhaps it may be said the hospital in its turn relied. Of the defendants Dr. Harris was at the material time a member of the partnership, Dr. Pavy was a former member who had for some years resided and practised in Adelaide and Dr. Juliet Howard, who had graduated in 1950, was employed by the partnership as an assistant.

On Saturday, 24th July 1954, the plaintiff, a boy then six and a half years of age, was brought by his mother to the hospital suffering from a fracture of the forearm which he had sustained in playing. The sister in charge communicated with Dr. Juliet Howard who came up to the hospital and examined the injury. She saw that it was a serious fracture and directed that the child should be admitted to the hospital. Dr. Harris was not in Naracoorte that afternoon but it happened that Dr. Pavy was visiting the locality. She arranged that he should attend the hospital on that evening at seven o'clock to reduce the fracture while she administered the anaesthetic. She had made an x-ray picture which shewed a bad compound fracture of both bones of the forearm with a very gross displacement. The reduction was difficult, it would seem, but the reduction

effected was, as Dr. Pavy considered, reasonably good. The arm was placed in a plaster cast. Dr. Pavy took no further part in the treatment of the boy. He returned to Adelaide and thereafter the responsibility for the case rested with Dr. Juliet Howard and Dr. Harris. The boy remained in the hospital until Tuesday, 3rd August 1954, when under the authority of Dr. Harris he was discharged. The plaintiff's case depends upon what was done or not done by Dr. Pavy, Dr. Harris and Dr. Juliet Howard between the time of his admission to the Naracoorte hospital on Saturday, 24th July, and his discharge on Tuesday, 3rd August, a period of ten days. But before considering the question whether any negligence is made out in the treatment of the patient during that period or in allowing him to leave hospital at the end of it, a brief description must be given of the condition which the boy's hand and arm had assumed when they were examined a few days afterwards, and there must be given also some account of possible pathological causes.

On the evening of the discharge of the child from the hospital great dissatisfaction, perhaps alarm, was felt by his mother over the condition of the patient, more particularly of his hand, and this was shared by the father when he saw the boy. As a result, after some telephoning to a doctor in Adelaide, they drove him to that city, a journey of 300 miles. On the morning of Saturday, 7th August, the boy was admitted to the Adelaide Children's Hospital. The surgeon who admitted him does not appear to have been available as a witness but his case notes were read in evidence. They shew that the patient's forearm was enclosed in plaster of paris which was slit half-way up. The slit perhaps had been done in the outpatients department. The back of the hand and the fingers were blistered and the child was complaining

of severe pain. The plaster was removed. There were blisters and pus up the forearm and a gangrenous spot an inch above the elbow and two on the ball of the thumb. There were blisters on the back of the fingers. The fingers were blackened but the nail beds were a good colour and the radial pulse could be felt. The child was treated with antibiotics and sera and the arm was elevated; the blisters were opened up and penicillin powder was sprayed upon the arm.

On Monday, 9th August, he was seen by the honorary surgeon in whose clinic the boy had been placed. Speaking with evident authority the surgeon, who was called as a witness, described not only the boy's condition then and as it developed but the probable and possible aetiology. When he saw the patient the blisters had gone, but the ulcers did not clear up for some time. However, treatment overcame the infection. When the plaster cast was removed the fracture had become displaced. That, it would seem, was unavoidable. The boy was not discharged until 3rd November 1954. Then the arm had healed; there was some angulation of the fracture; there was paralysis of the hand; a claw hand had developed with some anaesthesia of the fingers, a Volkmann's ischaemic contracture, as this witness considered, not a kindred or similar condition as some were disposed to say, but a Volkmann's contracture. Such a condition follows a disturbance of the circulation primarily occurring in the arterial supply. The supply to the muscles being cut off, the muscle tissue is eventually replaced by fibrous tissue and the nerves too are affected with consequent anaesthetic patches. The hand assumes a claw-like appearance which is characteristic. The cause may lie in the nature of the injury done by the accident; there may be damage to the artery or vessel itself or it may be pinched by bones: the inside walls may be torn. The commonest cause is a spasm induced in different ways including excessive bleeding from a vein or small vessel causing a pressure under the fascia.

It seems to have been common ground that though the infarction might be caused by arterial injury, traumatic arterial spasm, and indeed embolism and so on, yet compression under a tight plaster may be the cause of the reduction or stoppage of the arterial blood supply to the muscles and that, of course, may be combined with conditions arising from the injury. An extract from Bunnell's Surgery of the Hand was put in evidence in which the following passage occurs: "The pressure within the closed fascial space is the result of swelling from edema, extravasation or hematoma, and these result from venous or partial arterial occlusion, or both, as is so commonly furnished by the unreduced supracondylar fracture. It may also come from any trauma to the contents of the anterior fascial space in the forearm. Whether from fracture of the forearm bones, contusion, crushing, or thermal injury, the vicious circle is started. The greater the swelling, the more is the circulation reduced in the enclosed space. Casts become tight, especially in front of the flexed elbow." In the course of the surgeon's evidence he was asked whether, having regard to the condition of the child's arm when he was admitted to the Children's Hospital, he was able to say how long before had been the onset of this condition. The witness answered, "Not accurately. I would say that it would be at least a week" (i.e. before 7th August). He added that the contracture could have been present longer than that. The effect of his evidence was that the period after the interruption of the blood supply within which symptoms of the Volkmann's contracture would appear necessarily depends on the injury and the method in which it is treated. After the cutting off of the supply of blood you might get a complaint of pain and then an inability to extend the fingers. That might occur within twelve hours of the injury. If the cutting off of the supply of blood was not complete but

the supply was nevertheless quite inadequate, ultimately there would be a fibrosis of the muscles. He said that a Volkmann's contracture is comparatively rare but it is feared in every fracture.

Another orthopaedic surgeon described the child's case as a severe case of Volkmann's ischaemic contracture. It was a state of affairs in the forearm and hand due to a deprivation of blood from the tissues. The lesion might have occurred at the time of the accident, e.g. trauma from the fractured bones, or at the time of a reduction of the fracture, trauma of the artery or an entanglement of the artery in soft tissue components, pinched in during a reduction; it might have been due to traction of the forearm at the time of manipulation, elongating the vessel and causing a more severe degree of vascular impairment where there had been a lesser one. If it occurred at the time of the accident manifestations might be expected in a day or two, such as colour changes in the hand and fingers, loss of sensory appreciation, inability to move, then pain on stretching the fingers backwards or loss of capillary return on compressing finger tips.

In the course of the evidence of a third surgeon, one of long experience, the view was expressed that, though there is not much hope of an ischaemic muscle recovering, the only chance lay in a supply of blood from another channel and that would depend on compression or otherwise. For that reason emphasis was placed on freeing a limb from constriction or circulatory embarrassment. The blisters which had been described to this witness would in his view call for an immediate removal of any plaster on the arm. "The first thing one would do would be to free the plaster . . ."

As might be supposed a wealth of evidence concerning the cause, nature, symptoms and treatment of the

condition was offered at the trial. But the foregoing gives sufficient understanding for the purpose of appreciating a brief narrative of the treatment of the boy at the Naracoorte hospital from 24th July to 3rd August 1954. The narrative must be very compendious; for there is a mass of detail proved in evidence and it would do nothing to elucidate the grounds on which this judgment proceeds if the subsidiary considerations were allowed to obscure the decisive elements.

But two things must be borne in mind in this by no means easy case. In the first place, to any mind approaching without surgical knowledge and experience an inquiry into such a catastrophe as the plaintiff has encountered, it is a natural assumption that it is a thing that ought not to have been allowed to happen. Whether such an instinctive preliminary approach is justifiable is another thing. Indeed it may be said that one point in the case is that special knowledge obtained from evidence shews that without any fault or neglect in surgical or medical treatment a Volkmann's contracture may occur. In the next place it is unavoidable that all the evidence of what was actually done in treating the plaintiff should come from the defendants and the hospital staff. This makes it desirable that their evidence should be examined with care and weighed with the objective facts and circumstances.

The earliest medical attention the plaintiff received was from Dr. Juliet Howard, who is one of the defendants. She reached the hospital between four and five o'clock in the afternoon of Saturday, 24th July 1954. She took an x-ray of the injury and arranged for Dr. Pavy, also a defendant, to perform the operation of reducing the fracture while she acted as anaesthetist. Dr. Pavy is a general surgeon. He found that the fractured forearm was bent at a considerable angle. There was some blueness and swelling which he described as "not excessive" and the hand was a

little dusky. There was a small puncture wound on the inner side of the forearm. He found quite a good radial pulse. He said that it was a bad fracture and a very difficult reduction. Under an x-ray screen he reduced the fracture. The reduction, he said, was reasonably good and it relieved any circulatory distress there was; that was evidenced by a return to normal colour of the skin below the level of the fracture, a very quick capillary circulation. He dressed the wound in the arm; he could see no puncture wound in the fascia. After dressing the wound he applied a padded plaster which he split just at the wrist. Dr. Pavy had some discussion with Dr. Juliet Howard about the possibility of its being necessary to reset the arm and the possibility if there was any swelling of its being necessary to split the plaster. He left the case in her hands, assuming that Dr. Harris would take charge of it. Dr. Juliet Howard says that a penicillin injection and an anti-tetanus injection were given and that Dr. Pavy instructed her to ask Dr. Harris to see the child as soon as possible. On the following day, that is, Sunday 25th July, Dr. Harris and Dr. Juliet Howard saw the boy. Dr. Harris was told what had been done and saw the x-ray pictures of the arm before and after reduction. Both doctors considered that the patient's condition was satisfactory. The hand was a little bit swollen but the colour was good. Dr. Harris says that he thought the reduction "a borderline position to accept". That was about midday. Dr. Juliet Howard saw the child that evening. He complained of pain but the colour of the fingers was unchanged and the movements appeared good still. To relieve his pain Dr. Juliet Howard attempted to split the plaster further but after splitting it up the arm for a couple of inches, she desisted because it caused the boy more pain to continue. Dr. Harris saw the

patient on the morning of Monday, 26th July. Dr. Juliet Howard told him that she had split the plaster to some extent because the hand had swollen a bit and the child seemed in pain from it, but that she had not had the heart to go on. According to the nurses' report book, he had slept fairly well during the night of Saturday, was miserable on Sunday afternoon with the plaster tight, slept fairly well that night but cried during the morning. The report book would not be seen by the doctors. It noted that the hand was swollen, colour poor, but he was able to move his fingers which were warm. Dr. Harris arranged to take the plaster off and manipulate the arm further while the child was under an anaesthetic. There was a protest from the mother but this was done about five o'clock that afternoon. Dr. Harris said that there was swelling of the fingers and hand but it was consistent with the normal treatment of a fracture. He was conscious of the possibility of further damage being done; his manipulation was gentle and he had no difficulty in getting the particular position he wished. He applied a plaster back slab, sheet wool padding, and completed the plaster with turns of plaster bandage. The child seems to have slept well that night.

Next day, Tuesday 27th July, Dr. Harris, who says he probably saw the child three times every day in the course of his visits to the hospital, inspected his hand. He says that he was satisfied that there was no swelling and there was normal circulation and ability to move the fingers. But at the close of the day, under his direction, pethedene, a potent analgesic, was given to the patient. He had been fretful and complained of the pain in his arm. Difficulties had arisen with his parents who under the rules of the hospital were not permitted to visit him in the children's ward, and Dr. Harris, who was summoned to deal with the difficulty, directed that next

day the boy be placed in the adult ward. The parents were anxious about the treatment of the child and suggested taking him to Adelaide. But while the inharmonious relations between the parents on the one hand and the hospital and doctors on the other may help to explain some aspects of the case, the matter does not seem to have any other bearing on the issue, namely, whether the boy's ultimate condition is to be attributed to any negligence in the surgical and medical treatment he received. On the night of Tuesday the child cried for some time and then, phenobarbiton having been given, he slept. The nurse noted that his fingers were warm and the colour good. Next day, Wednesday 28th July, Dr. Harris says that he found the fingers a little swollen but regarded it as "an indication to watch but not an unusual occurrence". On the following day he regarded the condition as unsatisfactory. The fingers were dusky, "a little dusky", and stiff. The child was crying and upset. Dr. Harris cut the plaster for the full length; he cut a double line channel half an inch wide. That exposed the sheet wool, which he left there. He revisited the patient during the day to see what difference this had made. He then picked out the sheet wool from the split and exposed the skin. Next day, that is, Friday 30th July, he says that he adjusted the plaster further by levering it and making a wider gap and, with forceps, picking out wool under the overhang of the plaster. The nurses' day report of 29th July contains no note of the splitting of the plaster and that of 30th July notes "Plaster cut by Dr. Harris". No point of this discrepancy, if it amount to a discrepancy, with Dr. Harris's evidence, seems to have been made at the trial. It seems proper to proceed on the footing that the plaster was cut on Thursday, 29th July, and that the note in the book of the following day refers really to what Dr. Harris did on that occasion, no note having been recorded of the

procedure on 29th July. The child spent a better night but he did cry and pethedene was administered.

According to the evidence of Dr. Harris there was, in the ensuing days, a progressive lessening of the swelling. There was no evidence to him of impairment of sensation, loss of active movement or discolouration. The child's temperature did not go above 100 deg. On Monday, 2nd August, Dr. Harris formed the opinion that the child might be discharged. There were blisters upon the exposed part of the arm but they were not infected blisters. They were what he called plaster blisters. There were no untoward symptoms except the swelling which had become less. Dr. Harris requested that the parents be sent for and he also asked for an x-ray of the arm to be taken. Dr. Juliet Howard took the picture but in her evidence she said that her memory of doing so was vague. However, she was certain that she did not then or at any time see any evidence of circulatory damage. Having decided that the child might be discharged from the hospital Dr. Harris completed the plaster with a plaster of paris bandage. He did not close or reduce the gap he had made in the cast but he covered it, because the child would be out of hospital control.

Next day the boy's mother came to the hospital. Dr. Harris said that he told her that the child had been kept in hospital quite a time; that his fingers were still a bit swollen but that should disappear completely in the next few days; the reason why he had been in hospital so long was that he had been put in plaster which had become too tight with the swelling of the arm. Dr. Harris said that he pointed to the child's fingers which were uncovered and visible; on the exposed part of the hand there were no blisters and no suggestion of blisters.

The mother's evidence was that when she saw Dr. Harris and took the child away his hand was covered with

white gauze. A witness who saw the child almost at once said you could see only the ends of his fingers and that they were blistered like a fester and were swollen. The boy's father was not at Naracoorte on that day and did not see his son until early morning on Wednesday, 4th August. According to his evidence, from the place where the plaster ended to the beginning of the nails on the left hand each finger was covered with a complete blister; they were of a dirty-looking colour between dark blue and reddish brown. The child was complaining of pain. After consulting a pharmaceutical chemist and telephoning to a doctor in Adelaide, the parents set out with the child for Adelaide. They eventually took him to the Children's Hospital, and there he was dealt with in the manner described. The evidence of the parents was that on the way to Adelaide the blisters burst and that there was a strong smell from them. Reed J., although in all other respects he accepted Dr. Harris's evidence in preference to that of the boy's mother and father, accepted their evidence as to the condition of the fingers on the afternoon of 3rd August and the morning of 4th August and on the journey to Adelaide. His Honour said: "I find that there were blisters on the plaintiff's hand at the time when he was discharged from hospital. It may be that the blisters were not in an advanced stage at that time and that when Dr. Harris saw blisters on the previous day their condition was not serious enough to call for any special treatment." His Honour proceeds to suggest other possibilities which might explain Dr. Harris's failing to notice blisters.

Upon the whole of the facts Reed J. negatived negligence on the part of any of the three doctors concerned.

In ordinary circumstances such a finding made, as it was, after a full hearing on oral evidence, would be treated in this Court as almost a governing consideration unless the

appellant were able to point to some clear error or misapprehension on the part of the learned judge or some very definite and persuasive reason for invalidating the conclusion. But in this case a very curious and unusual misreading of a piece of evidence by his Honour lends support to the contention that we ought to re-examine the facts for ourselves. The practice has long obtained in the Supreme Court of South Australia of having the evidence directly taken down in typescript by a system of abbreviations. Satisfactory as this system has been, it led in this case to a strange mistake. During the cross-examination of a surgeon called as an expert on behalf of the defendants Dr. Pavy and Dr. Juliet Howard, the question was put to the witness: "The blisters described to you if seen by a medical practitioner would call for an immediate removal of any plaster on the arm?" The witness answered: "Yes, they would demand (for) an immediate investigation of what was doing. The first thing one would do would be to free the plaster, even if caused by " a certain hypothetical cause not material to the present point. The word "first" was abbreviated "1st" and unfortunately his Honour read this as an abbreviation for "last" and so interpreted it. His Honour in referring to the question of the significance of the blisters said: "And although he" (the witness) "agreed that blisters such as those described would demand an investigation of 'what was doing', he expressed the opinion that 'the last thing one would do would be to free the plaster'." It is apparent that if his Honour really accepted the view that the last thing a skilled and experienced surgeon would do would be to free the arm of the plaster, although he suspected an ischaemic process, such a supposition must or at least would tend to affect his whole consideration of the case.

This appears very clearly from two passages in the evidence of an orthopaedic surgeon whom the plaintiff called

as a witness. In effect the surgeon said that the treatment of a Volkmann's ischaemic contracture lay in its prevention. Precautions must be taken to avoid causing or perpetuating conditions which would give rise to it. The reduction effected must be adequate only having regard to the amount of swelling and damage present. It is not necessary to secure a perfect reduction. Then the plaster should not be too tight. The cast should not be complete until swelling is reduced. When the existence of the ischaemic condition is suspected there should be a full release of any restricting substance: encirclements should be released so long as bone movements producing pain do not keep a vascular spasm active.

The primary position taken up on behalf of the plaintiff-appellant before this Court was that a prima facie inference of negligence in the treatment of the plaintiff arose from the condition of his arm as it was found to exist when he was examined in the Children's Hospital or perhaps four days earlier at the time of his discharge from the Naracoorte Hospital, and that the inference sufficed to implicate all three doctors who are defendants. This contention, of course, in a sense reflects the feeling with which, as has already been said, one may begin, namely, that the contracture ought to have been avoidable. But the answer to the contention is a short one. It is that a study of the medical evidence shews that a Volkmann's ischaemic contracture may occur in patients notwithstanding the exercise of due care and skill on the part of surgeons into whose hands a case of fracture has been placed at once. It may occur from causes which do not lie in the procedures of surgical treatment. It may occur from causes which do lie in such procedures, or to which such procedures may contribute, and yet there may be no fault, and no failure in the exercise of care and skill on the part of the surgeon.

To support such an inference as the argument for the appellant seeks to have drawn from the event coupled with what may be called the external circumstances, there must be a greater probability a priori that such an occurrence in a patient placed in due time in a surgeon's hands has arisen from the surgeon's neglect or unskilfulness than that causes are responsible for it which either could not be prevented averted or intercepted at all or only by a surgical skill resourcefulness or special knowledge which goes beyond reasonable skill and care. The short answer is that the whole evidence shews that this is not so. The danger of an ischaemic condition is one to which every surgeon in such a case ought to be and doubtless is alive but although the actual incidence is not great the occurrence of a case does not justify an inference of fault.

It is necessary therefore to turn from the attempt to make out a case by presumptive inference to the question whether on all the evidence it appears affirmatively that the plaintiff's misfortune is attributable to any act or omission involving want of due care or skill on the part of one or more of the three practitioners concerned. It is a question which requires close consideration of the successive steps which were taken in the treatment of the boy's arm. Before we adopt a conclusion or finding against the three doctors or any one of them we should be reasonably satisfied that the boy's present condition or, at all events, some sufficiently definable part of his suffering arose from an act or omission in his treatment which implies a want of due care or skill. The act or omission should be susceptible of statement or definition; for like any other person who is charged with negligence a surgeon is entitled to know what it is that he ought to have done or ought not to have done and he ought not to be held liable upon a theory that somehow or other he should have been able to prevent the result complained

of. In the present case it is difficult indeed to see what case against Dr. Pavy is disclosed by the evidence. It is possible that he encased the limb too tightly and if he did so it is possible that he thus contributed to the injury or even caused it. But there is no adequate reason for concluding affirmatively that he made that mistake or that the consequence ensued from it. Still less is there any reason to suppose that in the difficult task to which he addressed himself he exhibited any want of due care or skill. He was blamed for not communicating to Dr. Harris with sufficient definiteness all his views and apprehension about the case. But Dr. Juliet Howard was a practitioner who knew all about it and there were the x-ray pictures which she had made. Dr. Harris thus had as adequate a source of information as could reasonably be looked for. In fact she does not seem to have omitted to give to Dr. Harris any information which was necessary. No doubt the account given in evidence of what passed between her and Dr. Harris may appear meagre, but skilled people practising a technical profession do not need the assistance of long disquisitions especially in relation to matters where the objective facts speak plainly enough for themselves. Dr. Juliet Howard was also blamed for desisting in her attempt to split the plaster. It is said that she ought to have relieved the pressure by completing the work in spite of the pain it gave; to relieve the pressure was essential, the pain was symptomatic and the damage may well have been caused by a process of ischaemia then in progress. The argument is based on hypotheses and imputes to her a want of care and skill where all that could reasonably be questioned was the soundness of a judgment which was exercised with proper consideration of the factors involved. It is not necessary to elaborate the point. It is enough to say that it is guess-work to say that

her judgment was wrong in the sense that the harm was thus done and it is simply wrong to say that she exhibited any want of care or that she was unskilful.

When Dr. Harris took the responsibility of the case, it may be that the ischaemia had already been caused. The damage may have been done already by the accident, the developments in the arm itself whether by arterial spasm or otherwise, the tightness of the plaster or the swelling of the arm. The very complaints made against Dr. Pavy and Dr. Juliet Howard involve the supposition that some of these antecedent causes were responsible. The probability no doubt may be said to be the other way. But the difficulty of the plaintiff's case is illustrated by the fact that what actually occasioned the ischaemia cannot be discovered or identified by any process of inference. When Dr. Harris placed the boy under an anaesthetic on Monday, 26th July, removed the plaster and manipulated the arm, there is every reason to accept the view that he was fully alive to the risk if the arm was improperly handled or too tightly encased. Is there any sound ground for concluding that he should then have abandoned the attempt to use a cast? Should he have taken any other step? After full consideration it seems impossible to conclude that on that occasion he was wrong in the course he took. In the light of the events that have happened doubtless he might now form another judgment. But even now it is not possible to say that he did not pursue the best and wisest course in treating the arm as he did. It is conceivable that a spasm was occasioned and that the arm was deteriorating. But it is nothing but a logical possibility which might explain subsequent events. It affords no reason for regarding his judgment as at fault, much less for attributing it to want of reasonable care or skill. It is needless to go over the events of the ensuing few days.

Of them the same observation is true. When he came on 2nd August to decide to discharge the patient, it seems clear enough that his grounds for doing so were not unconsidered. He obtained the x-ray; he did not free the arm further. The blisters may have been more important than he thought. The observation that he says he made to the mother next day that the reason why the boy had been kept so long in hospital was that his arm had been put in plaster that became too tight with the swelling of the arm, may be used against the defendants as implying that at some point the arm had been too tightly encased. But there is another view of it. It may be understood as meaning that because his arm swelled he had been kept under treatment and observation until it was believed it was safe. Was his judgment made on 2nd August that the boy might properly be discharged from the hospital reached carelessly? Should it have been revised on the next day? In dealing with those questions it must be remembered that he did not contemplate the removal of the child from his charge. He took it for granted that he would visit the child and that he would be called in if need be.

It is difficult to know what is the truth about the condition of the fingers on the morning of 3rd August when the child left the hospital, and what deterioration took place between that time and 7th August. One may suspect now that the ischaemic process had gone far, too far to arrest or remedy; and that the condition which the parents describe so vividly developed rapidly and, as nothing appropriate had been done for four days, presented a picture at the Adelaide hospital of a rising infection which speedily responded when taken in hand. But whatever be the explanation two things stand out. The first is that a deliberate judgment founded on examination and on x-ray pictures determined Dr. Harris to discharge the boy. The

second is that, having regard to the instructions that were given, to allow the boy to go home was not to cause or contribute to an ischaemic process resulting in a Volkmann's contracture. But on no view however unfavourable can the failure of Dr. Harris on 3rd August to retain the child in hospital be considered a ground of liability; for there is nothing to suggest that it played any part in causing the contracture. Nor indeed, but for the withdrawal of the child from Dr. Harris's care, could it be said that the sufferings of the child were thereby increased. However, the primary fact is that there is no safe ground for inferring that any negligence was exhibited by Dr. Harris in allowing the child to leave hospital.

It would be possible to discuss many aspects of this case but the foregoing appear to be the substantial matters on which the liability of the defendants depends. For the foregoing reasons a finding is not justified that any of the defendants contributed by any negligent act or omission or want of skill to the ischaemic contracture of the child's hand or to any injury or suffering for which he would be entitled to damages. The Naracoorte District Hospital cannot of course be liable unless vicariously and accordingly the case against that institution must fail.

The appeal should be dismissed.

PETER RAYMOND YOUNG
(an infant by his next friend)
PETER FRANK YOUNG

v.

HAROLD KEITH PAVY, IAN ANTROBUS HARRIS, JULIET HOWARD AND NARACOORTE DISTRICT HOSPITAL INCORPORATED

JUDGMENT

TAYLOR J.

PETER RAYMOND YOUNG
(an infant by his next friend)
PETER FRANK YOUNG

v.

HAROLD KEITH PAVY, IAN ANTROBUS HARRIS, JULIET HOWARD AND NARACOORTE DISTRICT HOSPITAL INCORPORATED

In the action which has given rise to this appeal the appellant, by his next friend, sued the respondents to recover damages for negligence in the care and treatment of an injury received by him on 24th July 1954. The appellant, who at the time proceedings were instituted was six years of age, fractured both bones of his left forearm when he fell heavily on a bottle whilst playing in the caravan park at Naracoorte. Shortly afterwards he was taken to the outpatients department of the Naracoorte District Hospital where he was seen first of all by a nursing sister and, thereafter, his admission to the hospital was directed by Dr Howard, one of the respondents. Subsequently, on the 3rd August 1954, he was discharged from the hospital and on 6th August 1954 he was taken by his parents to Adelaide where, on the following morning, he was admitted as a patient to the Adelaide Children's Hospital. There, it appears, it was found that the circulatory system of the appellant's left arm had at some stage become impaired as a result of which he developed a condition recognizable either as Volkmann's Ischaemic Contracture or a deformity which, in a large measure, resembled that condition. It was marked by a necrosis of muscle tissue caused by failure of adequate blood supply to the affected part and the development of a characteristic claw-like appearance in the left hand. The condition is said to be "irreversible" and in the result the appellant has been left with a serious and permanent disability. Upon the trial the learned trial judge held that the appellant had failed to establish negligence against any of the respondents and directed judgment for them. This appeal is now brought in an endeavour to set aside his Honour's order and to secure an

order for a new trial for the purpose of assessing damages against all or some of the defendants.

The three individual respondents are medical practitioners, two of whom, Dr Howard and Dr Harris, practised at Naracoorte at the relevant time. Dr Harris practised in that town in partnership with three other medical practitioners and Dr Howard was employed by the partnership. Dr Pavy, who is a general surgeon in Adelaide, happened to be in Naracoorte on 24th July 1954 and after making his contribution to the appellant's treatment he left Naracoorte on the evening of that day. In view of the fact that the action combines separate and distinct claims against these medical practitioners it will be necessary to consider in some detail what occurred between the appellant's admission to the hospital on 24th July 1954 and his discharge on 3rd August following. But before proceeding with this inquiry it is necessary to mention that the only basis upon which it is sought to pursue the claim against the hospital is by asserting that, in the circumstances, it was vicariously liable for the acts of each of the medical practitioners who at different times gave some attention to the appellant.

It is also desirable before tracing the history of the appellant's treatment to refer briefly to the evidence concerning the causes to which the appellant's present condition may possibly be ascribed and to the signs and symptoms which, in cases such as the present, may give warning of the onset or occurrence of substantial circulatory disturbance or impediment. At the outset it should be said that Volkmann's Ischaemic Contracture is a rare condition and Dr Rieger, an honorary surgeon at the Adelaide Children's Hospital, said that only five cases of this condition had been admitted to public wards of that hospital in twenty-five years. Apparently until the last quarter of the last century it was thought that any muscle contracture occurring after an

injury to a limb resulted inevitably from some form of nerve paralysis. But late in that century it was ascertained that in some of these cases the origin was to be found in a continuous, though temporary, occlusion of the arterial blood with resultant necrosis of muscle tissue and its replacement by fibrous tissue. Originally, in the case of fractures, tight splinting was assigned as the cause of circulatory disturbance but in later years the view appears to have gained some acceptance that "external constriction is, at most, a contributory factor" though "so many cases have followed tight splinting that only a bold man would acquit this factor completely" (British Journal of Surgery 1940-1941 Vol 2 p. 246). But it appears to be beyond doubt that Volkmann's Ischaemic Contracture, or a condition substantially resembling it, may be produced by any form of arterial lesion or disturbance which operates to prevent the normal flow of blood in the limb affected. Consequently in the case of a fracture, it is said that the condition may result from an arterial injury sustained at the time of fracture or, subsequently, upon the limb being manipulated for the purpose of reduction. Such arterial injury may range from any form of lesion capable of occluding the flow of blood or capable of inducing spasm in the artery with the same result, to constriction or perforation by adjacent fragments of bone. Again the circulatory disturbance may be a result of embolism or thrombosis. But as already mentioned although arterial injury has been a well-recognized complication of fracture cases for many years the development of a permanent condition of ischaemic contracture has been rare.

The rapidity with which the symptoms of ischaemia appear seems, naturally enough, to depend in a large measure upon the degree of arterial disturbance. They may, and usually do, it is said, appear within a few hours of the injury though the onset may be delayed "as long as

twenty-four hours or even a few days". In the case of a fracture of the bones of the arm there may be a burning pain in the forearm or in the hand though in the case of major nerve injury pain may be entirely absent. But if there is pain of this description in the forearm on passive extension of the fingers or the assumption by the fingers of a flexed position this is said to be "a very serious early sign . . . that severe damage has already been done to the flexor muscles". Accordingly it is said that "if preventive treatment is to be attempted with any hope, earlier signs must be sought". According to the British Journal of Surgery (supra at p. 241) "the most important of these are the signs of obstruction to circulation in the limb, usually in the form of cyanosis and swelling of the fingers". "Blue and swollen fingers are", it is said "by no means inevitable" but the presence of this condition or pallor is a "not infrequent early sign". The absence of the radial pulse seems to be of first-rate importance as a symptom though, since the ulnar pulse, in normal circumstances, is usually not capable of detection, failure to observe it after a fracture or other injury is of little significance.

These are important matters to bear in mind when we come to consider the course of events between the appellant's admission to the Naracoorte District Hospital on 24th July 1954 and his discharge from that institution on 3rd August 1954. As already appears he was admitted on the direction of Dr Howard and she observed that it was a serious fracture with gross displacement of both bones of the lower forearm and it required, she thought, reduction as soon as possible. Dr Howard was, as she described, the "duty doctor" in Naracoorte on that day her principals being absent at a medical conference some thirty miles away. But Dr Pavy happened to be in Naracoorte at the time and as she required assistance she communicated with him and asked him if he

would come to the hospital and "attend to the reduction". Dr Pavy arrived at the hospital about 7.00 p.m. and after discussion a general anaesthetic was administered by Dr Howard whilst Dr Pavy performed the work of reducing the fracture. Before attempting this Dr Pavy inspected the X-rays previously taken by Dr Howard and he observed that the appellant's radial pulse was quite good. There was, as might be expected, some swelling and some blueness around the inner forearm and there was a puncture wound overlaying the site of the fracture but the swelling was not excessive, and, was not, apparently, such as to make it inadvisable to immobilise the arm in plaster from above the elbow to a position below the wrist. It was, he said, a very difficult reduction but it relieved any circulatory distress which then existed this being evidenced by "a return to normal colour of the skin below the level of the fracture" and by "a very quick capillary circulation". After the manipulation the appellant's radial pulse was still good; it had, according to Dr Pavy been "good right through". Dr Pavy left Naracoorte that night and he did not see the appellant again but before leaving he mentioned to Dr Howard that the case "needed watching" and that it was possible that a further reduction would be necessary.

Dr Howard saw the appellant again on the following morning and later that evening she observed that the swelling on the appellant's arm was still present and that he was suffering a degree of pain. Though she did not think it necessary that the plaster bandage should be split nevertheless she partially split it for the purpose of affording some relief. She did not split it along its whole length because without an anaesthetic it would have caused too much distress to the patient.

In the meantime Dr Harris had seen the appellant about lunchtime on the 25th July. He was then told by Dr Howard that the appellant had a compound fracture of his left

forearm and that Dr Pavy was of the opinion that he "ought to do something more about it". Both Dr Pavy and Dr Howard assumed that Dr Harris would take charge of the appellant since he was the member of the partnership who generally looked after the surgical work. Dr Harris saw the X-ray films which had been taken both before and after the first reduction and he realized that it was a bad fracture. Upon consideration of the X-ray films he was of the opinion that the position of the bones of the forearm was "a border-line position to accept" and when he saw him on the following morning, the 25th July, he decided after examination that there should be further manipulation. Accordingly, about 5.00 p.m. on that day another anaesthetic was administered and a second manipulation took place with the aid of a fluorescent screen. Dr Howard was again anaesthetist on this occasion and this was the last occasion on which the appellant received any attention at her hands. Dr Harris deposed that he cut the plaster off, put gentle traction on the arm, examined it under the screen, and then after appropriate manipulation sheathed the arm from above the elbow in two layers of sheet wool, put a pad of cotton wool at the bend of the elbow, applied a plaster back slab to the forearm that would extend from just short of the knuckles to above the elbow and completed the plaster with turns of plaster bandage. Dr Harris says at this time there was a degree of swelling of the fingers and hand which was consistent with a normal condition after fracture. It was, he said "what you very often do see" and there were signs suggesting some embarrassment of circulation such as is usually seen after a severe fracture. There is little doubt that on this occasion a very good anatomical result was secured upon manipulation. Dr Harris said that before he left the hospital he gave the usual warnings about reporting swelling, any loss of mobility,

changes of temperature or changes of colour and also that the arm should be elevated by propping it up on pillows. After the 26th July Dr Harris says that he saw the appellant at least three times during each day. On 27th July he satisfied himself that there was no swelling or discoloration of his hand, the temperature of the skin appeared to be normal and there was normal capillary circulation and the appellant was able to move his fingers. However the appellant had experienced considerable pain and an analgezic was administered both on that day and the two following days. Dr Harris regarded the appellant's condition as satisfactory in the circumstances on 27th inasmuch as the fingers were not swollen or discoloured and the appellant had active power of movement. On 28th July the appellant's condition was much the same except that according to Dr Harris his fingers were a little swollen. On 29th July, however, his condition was unsatisfactory; the fingers were swollen, they were a little "dusky" and stiff and that being so Dr Harris thought it desirable to cut the plaster by removing from it a half-inch wide channel running the full length of the plaster. This, which he said he did on the 29th July, exposed the sheet wool and later on the same day part of the wool was removed by forceps and the skin exposed. In the course of these operations some widening of the channel was obtained by "wedging" and, thereby, some increase in the internal circumference of the plaster was obtained. According to Dr Harris the appellant's condition had improved on 30th. At this stage, it was said, the colour of the fingers was normal, there was some swelling still present but it was decreasing and active movement of the fingers was possible. Nevertheless Dr Harris by means of wedging further increased the internal circumference of the plaster and took out a little more of the wool adjacent to the so-called channel. On 31st July there was a lessening of the swelling and there was no

evidence of impairment of sensation, loss of active movement or discoloration. On that day the appellant was allowed to get up for part of the day and on the following day, the 1st August, he was moved from the ward in which he had been accommodated to the solarium. On 2nd August the appellant had so far improved that Dr Harris was of the opinion that he might be discharged from the hospital on the following day. This was in accordance with the wishes of the appellant's parents who had seen him from time to time after some discussions to which reference will shortly be made. But before he was discharged on 3rd August the split in the plaster cast was covered by further plaster bandages which Dr Harris applied. This, he said, did not encroach on the additional internal circumference which had been obtained and he closed the gap because he did not wish to discharge the child with a split bandage. He had previously attempted to close the gap with various things such as gauze bandages, zinc oxide straps and elastoplast but on each occasion the appellant, who in some respects was a difficult patient, had removed them himself.

When discharging the child from hospital Dr Harris interviewed the appellant's mother and informed her that he should be kept in comparative quiet and that she should let him know "if all is not well". Mrs Young took the appellant from the hospital before or about lunchtime on that day and returned by taxicab to the caravan where they were living. Late in the afternoon when preparing the appellant for bed she says that she removed his pyjama coat and the gauze which covered his left hand and then found that his fingers were gravely discoloured and that there were blisters on the back of the fingers extending from a position adjacent to the plaster to the vicinity of the fingertips. The fingers appeared, she said, as though they had been burnt; they were "very darkish, between a blue and reddish colour".

She did not, however, communicate with Dr Harris nor indeed with anyone. Her husband had been away all that day and he returned to Naracoorte in the early hours of the following morning. His description of the appellant's fingers was that "each finger was covered with a complete blister" and the fingers were "a cross between a very dark blue and a reddish brown". Again Dr Harris was not communicated with during the 4th August but about 11.00 a.m. on that day the appellant's father took him to a local chemist to ask for something "to ease the pain and help". It does not appear what advice was given by the chemist to Mr Young but the chemist did not provide anything for the treatment of the appellant's condition. Thereafter Mr Young, in company with another witness, Heath, went to the latter's farm and telephoned to the home of Dr Kranz in Adelaide. Dr Kranz was not home but they rang him on the morning of 5th August and arranged to take the appellant to Adelaide. This they proceeded to do some twenty-four hours later and they arrived in Adelaide on the evening of the 6th August. Then, on 7th August he was admitted to the Children's Hospital where the plaster was removed and treatment given for the condition then found to exist.

Unfortunately the medical practitioner who admitted the appellant to the Children's Hospital was not available to give evidence though Dr Rieger, who saw him on the morning of the 9th August, was permitted to give evidence from the notes made at the time of the appellant's admission. There seems little doubt that there were infected blisters on the forearm, there were superficial gangrenous spots about an inch above the elbow and at the base of the thumb, blisters on the back of the fingers which, it is said, were blackened though the appellant's radial pulse was present. In the main the treatment given at this stage consisted of antibiotics and treatment for the superficial gangrene. The removal of the plaster, it was observed, resulted in gross

displacement of the bones of the forearm. The appellant remained in the Children's Hospital until the 3rd November primarily for the treatment of the infection and, in the later stages, for physiotherapy for the purpose of endeavouring to effect some improvement in the muscular condition of the arm. But at the time of his discharge and at the time of the trial his condition was as already described.

It is necessary to supplement the foregoing brief history by reference to a few other matters. The first of these is that Dr Harris examined the appellant early on the morning of 3rd August and he says that, although there were some "plaster blisters" on the forearm, there were no blisters on the back of the appellant's fingers at that stage and the second is that Dr Rieger, although he accepted the notes concerning the appellant's condition at the time of his admission to the Children's Hospital, says that when he saw the appellant on the 9th August there were no remnants of the blisters then remaining. The evidence on this point is, to say the least, curious for if blisters as described by the appellant's parents existed they must have been grossly infected and, upon this hypothesis, it is inconceivable that striking evidence of their existence some two days earlier would not have been visible when Dr Rieger first saw the appellant. That some such condition did present itself to the appellant's parents must, however, be taken to be beyond dispute for unless something had happened to arouse their apprehension it is unlikely that Mr Young would have visited the local chemist or telephoned to Dr Kranz in Adelaide. Nor is it likely that he would have undertaken the long journey to Adelaide for the purpose of obtaining further treatment. Further it is, to say the least, a matter for astonishment that, if the condition of the appellant's fingers on the 3rd and 4th August was as his parents described it, they did not communicate with Dr Harris and inform him at once. This is

particularly so when it is borne in mind that Dr Harris had told Mrs Young to let him know if all was not well. The explanation of why neither she nor her husband did so is, however, reasonably simple upon the evidence. In the first place the appellant had been admitted to the children's ward at the Naracoorte Hospital where visiting was confined to one day per week and this, naturally enough, was a matter of dissatisfaction so far as Mr and Mrs Young were concerned. But the blame for this they both erroneously laid at the door of Dr Harris and it led to some friction between them. Again when Mrs Young learnt that the second manipulation was to take place this was a matter of concern to her and there was some talk at a later stage of obtaining the services of a specialist to look after the child. Dr Harris appears to have conducted himself temperately in his discussions with the parents and, according to the learned trial judge, his relations with them did not, in any way, affect the standard of the professional attention given by him to the appellant. Indeed it seems that he was accorded close and considerate attention and in considering whether Dr Harris was in any way negligent the somewhat uncordial relations between him and the appellant's parents must be put aside. This was the view of the learned trial judge and upon the whole of the evidence it was proper to approach the problems in the case on this basis.

From what has already been said it is obvious that there are a number of problems in the case. They include the question whether the cause of the appellant's present condition is to be found in some damage sustained at the time of the original injury or later, during the first or second manipulations, and if at either of the latter stages, whether relevant damage could have been avoided by the exercise of reasonable care during manipulation. Then there is the question whether, in the subsequent treatment of the appellant, symptoms presented themselves which called for the taking of

immediate measures to guard against permanent damage of the character subsequently sustained by him. Finally the question arises whether Dr Harris was negligent in discharging the appellant on 3rd August 1954 it being alleged that reasonable care required that he should have kept the patient under observation for a further period.

Some indication of the manner in which Volkmann's Ischaemic Contracture, or a condition somewhat resembling it, may originate has already been given and during the course of the trial a considerable amount of medical evidence was directed particularly to the manner in which the appellant's present deformity may have been caused. Dr Rieger was of the opinion that it had resulted from some failure of the ulnar artery whilst Dr Lindon and Dr Sidey were of the opinion that it was the combined result of interference with small blood vessels which supply the muscle bellies and the median and ulnar nerves. But all the medical evidence agrees that the injury which the appellant sustained might, itself, have produced the circulatory disturbance leading to his present condition though, unfortunately, it does not enable us to say with any degree of conviction whether it occurred then or at some later stage. Nevertheless it is beyond doubt that the appellant's present condition resulted from an interruption to the normal flow of blood at some time or other between the date of the accident and his admission to the Children's Hospital in Adelaide. But whilst it is possible that some disturbance to the circulation may have occurred during the primary or secondary manipulation rather than as the result of some lesion or constriction sustained at the time of the fracture it is quite impossible upon the evidence to attribute the appellant's condition to any positive act done by any of the three medical practitioners on 24th or 26th July. Indeed the whole of the relevant medical evidence seems to

indicate that after each manipulation there were no indications of any circulatory disturbance of any significance. It is unnecessary to repeat the evidence concerning the observations made by the medical practitioners on these occasions and upon the whole of the evidence there can be no doubt that no case whatever has been made out against Dr Pavy or Dr Howard. Nor, indeed, can the appellant's claim succeed upon any allegation that Dr Harris was negligent in undertaking or performing the work involved in the secondary manipulation.

Accordingly it becomes necessary to consider whether Dr Harris was negligent in his treatment of the appellant between the 26th July and 3rd August and for the purpose of dealing with this problem it is convenient to review the matter in the light of the condition found to exist upon the appellant's admission to the Children's Hospital on 7th August. There seems little question that at this time the whole of the damage to the appellant's arm had occurred and, that being so, it must have occurred during the three days after his discharge from the Naracoorte Hospital or, earlier, at some time between the 26th July and 3rd August. For the appellant it is asserted that there was abundant evidence of warning signs during the earlier of these two periods but when the evidence is examined this assertion must be regarded as an overstatement. It is true that he complained of pain and this was stressed on his behalf, but the evidence shows that his complaints of pain consistently related to an area above the elbow and adjacent to the top of the cast where a subsequent superficial gangrenous spot was found to exist. This was not symptomatic of the onset of Volkmann's Ischaemic Contracture. Nor was the fact that in the earlier stages there was some swelling of the arm. But on 29th July there were signs of

circulatory distress. On that day, according to Dr Harris the appellant's "fingers were swollen, a little dusky and stiff" and this is borne out by the nurse's report for that day. On the night of 28th July the nurse's report shows "fingers swollen and colour poor this p.m." and in the day report for 29th July the following appeared "arm painful, fingers swollen, colour poor. Unable to move fingers to-day". At this stage a particular difficulty arises in the case because Dr Harris said that because of what he observed that day he cut a "double line channel half-inch wide of plaster running the full length of the plaster" and that he "wedged" the gap so as to increase the internal circumference of the plaster. But the nurse's report for the following day suggests it was done then. In that report there appears the note "plaster cut by Dr Harris". Unfortunately no attention was directed to this discrepancy at the time of the trial and all parties appear to have accepted that the plaster was cut on 29th July after signs of circulatory distress had been observed. Possibly the explanation is that when Dr Harris "wedged" the channel a little more open on 30th July and removed a little more of the padding from the cast this operation was noted by the nurse then on duty as the splitting of the plaster. However she was not called to give evidence and no attempt was made to establish that the evidence of Dr Harris to the effect that he had originally split the plaster on the previous day was incorrect. On the contrary the following questions and answers in the cross-examination of Dr Harris concerning the contents of a head report written up by him some time after the appellant's discharge tend to indicate acceptance of this fact:-

> "Q. It would appear from that (Exhibit E) on entry 29th July, that at the time you completed that, you believed you had done the splitting

open and the bandaging all on the 29th.

A. Yes. That is not correct. I did it on 30th too. In that report, there is no entry of me doing anything on the 30th.

Q. On the 29th, when you first cut the plaster and left the wool there, ... is the sheet cotton wool wound around in one sheet or what.

A. It can be and probably was.

Q. You would have plaster cut up, the cotton wool lying under it. You wouldn't have any view of the skin at that stage.

A. No, not until you split that.

Q. You said that on 30th you wedged the plaster with a lever. I don't follow that process. What did you do.

A. The point of the lever is the deep surface at one side of the plaster, the fulcrum of the lever is the superficial surface at the other side. Having wedged one side, one reverses the positions and wedges the other.

Q. Is much force required for that.

A. No. One can't use much force, unless you do it under anaesthesia".

It should be added that the nurses' reports, which appear to have been available to all parties throughout the trial, were put in evidence by common consent and it is not surprising that, in the circumstances, the learned trial judge found that the plaster was originally split on 29th July and "wedged" so as to increase the internal circumference of the plaster.

On the assumption which may safely be made that the appellant's present condition was "irreversibly" present on 7th August 1954 there may be some ground for thinking that

symptoms of ischaemia presented themselves prior to his discharge from the Naracoorte Hospital. As already appears there was evidence that following upon an arterial occlusion either as the result of injury or following upon spasm after injury permanent damage may occur within a matter of hours. Dr Rieger said that with "a complete cutting off" the damage could occur within twelve hours and that twenty-four hours might be the outside limit. It would, he said, depend "largely on the amount of spasm in the vessel". This evidence would seem to indicate that it is likely that the circulatory disturbance which resulted in the appellant's deformity manifested itself within a few days either of the fracture itself or within a few days of the second manipulation. Indeed Dr Rieger expressed the view that the "onset of the (appellant's) condition" was probably about a week before his admission to the Adelaide Children's Hospital. But whether it was possible for him to form a reliable estimate of this character is open to question and Dr Rieger himself said "one can't be dogmatic about it and lay down a hard and fast time". Nevertheless at the date of the appellant's admission to the Children's Hospital some time had probably elapsed since the occurrence of the first signs and Dr Rieger's estimate may find some corroboration in the evidence concerning the description of the appellant's hand and fingers on the night of 28th July and again on 29th July. Again Dr Wilson, who gave evidence in the appellant's case, was of the opinion that the appellant's deformity resulted from a vascular lesion sustained at the time of fracture or upon manipulation. It may, he said, have been due to a trauma to the artery, an entanglement of the artery in soft tissue components or traction on the forearm at the time of manipulation which had the effect of elongating the vessel or turning what might have been a lessor degree of vascular impairment into "a more severe degree". He did not, however, by any means exclude the

possibility that there may have been comparatively slight internal damage to an artery and an ensuing thrombosis caused by accretion at the site of the injury. In this sense he suggested that "something" might have been "smouldering". Dr Lindon on the other hand attributed the appellant's present condition to gross damage to the muscle bellies and the small arteries in the vicinity of the fracture. If, as he thought, this was the cause the damage was sustained at the time of the injury and it was irremediable. He and Dr Sidey had jointly examined the appellant's arm and they agreed that the present condition of the appellant's hand and arm was the combined result of interference with those small blood vessels which normally conduct a supply of blood to both the muscle bellies and the median and ulnar nerves.

Sufficient has been said to indicate that the real cause of the appellant's present condition is very much a matter of speculation but, whilst it is possible to underrate the importance of what occurred whilst the appellant was with his parents after the 3rd August 1954, it may be proper to assume upon the evidence that the signs of circulatory disturbance which presented themselves on 29th July indicated the initial stages of the existence of a condition which subsequently produced permanent damage in the appellant's arm. At all events it may be assumed, in the appellant's favour, for the purposes of deciding this case, that this was so. But how far does this advance his case? If Dr Lindon's and Dr Sidey's theory be accepted there was nothing that could have then been done to avert permanent damage. On the other hand if the view of Dr Rieger be preferred it became the duty of Dr Harris, upon becoming aware of the appellant's symptoms on that day, to take appropriate steps in an attempt to relieve his condition. What steps ought to have been taken were, however, a matter for the reasonable and careful professional judgment of Dr Harris. And it was, it may be

said, a judgment to be formed having regard to the appellant's general well-being. It is, of course, easy to say in retrospect that the plaster should have been removed entirely on the 29th July but there is, to say the least, no certainty that if it had been, permanent damage of the character sustained would have been avoided. Nor would it be reasonable upon the evidence to infer that it is probable that it would have been averted. What is clear, however, is that if the plaster had been entirely removed gross displacement of the fractured bones would have resulted with the possibility of further or additional arterial damage and the possibility of an indifferent anatomical result on further manipulation. With an eye on all the attendant problems what Dr Harris did was to split the plaster as already described and increase the internal circumference of the plaster. Later on the same day Dr Harris saw the appellant again and removed some more of the sheet wool from the channel. He had come back to the hospital, he said, "to see what difference" the splitting of the channel had made and the inference from the evidence is that the appellant's condition had then improved. On the following morning, it is said, the colour of the fingers was normal and the swelling, though present, had decreased. According to Dr Wilson the treatment adopted by Dr Harris was "recognized and proper" and if after the splitting of the plaster and "wedging" the "colour was right and the fingers could be moved" that was an indication that the splitting had achieved its purpose. In fact the evidence is to the effect that there was a distinct apparent improvement in the appellant's condition and it is said that active movement of the fingers was possible on 30th July and there was not thereafter any evidence of "impairment of sensation, loss of active movement or discolouration". If that was so then according to Dr Wilson, Dr Lindon and Dr Sidey the propriety of the steps taken by Dr Harris on the 29th July and following

days is not open to question.

The remaining question is whether the appellant was discharged from hospital too soon and grounds have been advanced for asserting that Dr Harris should have kept him in hospital under supervision for a further period. At the time of his discharge a week had elapsed since the second manipulation and according to Dr Harris all signs of the circulatory disturbance which had appeared on 29th July had passed and the patient's condition had considerably improved notwithstanding the presence on his forearm of some "plaster blisters". The nurses' reports, as far as they go, tend to support that evidence. In these circumstances it is difficult to see how the appellant's discharge on 3rd August, with the warning that he should be kept comparatively quiet and with the request that Dr Harris should be informed if all was not well, can be taken as a ground for attributing liability to him. Nor can the view be accepted that at the time of the discharge his fingers were grossly discoloured and blistered. Dr Harris examined the appellant early on the morning of 3rd August and if this condition had been present it could not possibly have escaped his notice or that of members of the nursing staff. It would seem that any blistering and discoloring of the fingers which was present late in the afternoon of the 3rd was a subsequent development and, indeed, it may, in part, have been attributable to the completion of the plaster bandage before his discharge. There is, however, no sound reason why, in the circumstances, Dr Harris should be thought negligent in completing the plaster bandage at that stage and, obviously, he cannot be held liable for any lack of attention after that time. If, late on the afternoon of that day the appellant's fingers were in the condition described by his mother it is, to say the least, astounding that medical attention was not sought at once. But, as already related

nothing was done that day whilst on the morning of the 4th he was taken to see the local chemist and it was not until his arrival at the Adelaide Children's Hospital on the morning of 7th August that he received any further medical attention whatever. It is possible that the circulatory disturbance which manifested itself on 29th July was subsequently, and unexpectedly, revived by the completion of the plaster bandage and that the appellant's permanent injury developed between the 3rd and 6th August. Whether this was so or not is, like so many other questions in the case, very much a matter of conjecture but in any event the fact that some time after his discharge the appellant's fingers were found to be as described affords no safe ground for concluding that Dr Harris had discharged him prematurely. Indeed anxious consideration of the whole of the evidence fails entirely to reveal any ground upon which it would be proper to attribute negligence to him at any stage.

Upon this view it becomes unnecessary to deal with the question of the liability of the hospital. But before parting with the case it may be said that, in spite of recent pronouncements concerning the vicarious liability of hospitals for the negligent acts of medical practitioners in attendance upon patients receiving treatment, no ground appears for thinking that this was a case in which the hospital could have been held liable for the acts of any of the other respondents.

For the reasons given the appeal should be dismissed with costs.

YOUNG

v.

NARACOORTE DISTRICT HOSPITAL INC.
AND OTHERS

JUDGMENT MENZIES J.

YOUNG

v.

NARACOORTE DISTRICT HOSPITAL INC.
AND OTHERS

On 24th July 1954 the appellant Peter Young, then a boy six years of age, fell and suffered a compound fracture of both bones of his left forearm. He was taken soon afterwards to the Naracoorte District Hospital which is run by the first named respondent where he was admitted as a patient and treated by the three doctors who are the three individual respondents. The condition of his arm and hand at the time of the trial was that the fracture had united with noticeable radial shortening, the lower part of the forearm was wasted and fibrous and was held in a mid prone position, the wrist flexed at about twenty degrees. There was practically no movement of rotation of the forearm, or of the wrist or fingers. Sensation was impaired over the mid part of the forearm and absent over the lower third part of the forearm and the hand. He is claw-handed and the hand is practically worthless. The condition so described is either Volkmann's ischaemic contracture or something akin thereto. For this condition he blames the hospital and the three doctors who treated him there and his action was to recover damages from them for negligence. The action which was tried by Reed J. failed and the plaintiff now appeals and seeks an order for judgment in his favour against the four respondents for damages to be assessed by the Supreme Court.

A short preliminary statement of the salient facts, leaving out matters of doubt and of speculation, will indicate the nature of the controversy. Upon the appellant's admission to the Naracoorte Hospital soon after his fall and between 4 p.m. and 5 p.m. on 24th July, his arm was x-rayed by Dr. Howard; thereafter, at about 7 p.m. Dr. Pavy reduced

the fracture and set the arm in plaster; on the evening of 25th July Dr. Howard attempted without success to split the plaster put on by Dr. Pavy which had by then become tight and was hurting; on 26th July Dr. Harris took off that plaster and after further x-ray examination again reduced the fracture and set the arm in plaster; on 29th July an unsatisfactory condition strongly indicative of circulatory trouble having been observed, Dr. Harris split the plaster and wedged it open and on the following day wedged it still further open; on 2nd August Dr. Harris believing the child to be getting better completed the plaster in anticipation of discharging him; on 3rd August Dr. Harris discharged the appellant from the hospital. Between 3rd and 7th August the appellant was with his parents who observed that his fingers were blistered, swollen and discoloured and who on 6th August took him by motor vehicle to Adelaide; on 7th August he was admitted to the Adelaide Children's Hospital where the plaster which had been put on, split and completed by Dr. Harris was removed. The child was in pain and it was noted that the back of his hand and his fingers were badly blistered, his forearm showed blisters and ulcers; there were two superficial gangrenous spots, one just above the elbow and the other on the ball of the thumb. So much is clear, as is the fact that after the plaster was removed the fracture became displaced, but there is surprisingly little information about the circulatory condition of the child's arm and hand and what was done with regard to it; it does appear, however, that soon after his admission to the Adelaide Children's Hospital his condition was diagnosed as Volkmann's ischaemic contracture and what little could be done at that stage was done. Whether the condition is Volkmann's ischaemic contracture or something akin thereto, it is common ground that it is a condition resulting

from a circulatory deficiency of blood in the arm and hand, i.e. ischaemia. The appellant's case against the respondents was that that lack of circulation was caused or contributed to by the doctors' negligent treatment of the fracture for which it is claimed the respondent hospital is also responsible.

The fracture was without doubt a serious one which caused very considerable damage to the nerves, muscles and arteries of the arm. It is perhaps improbable that the radial artery was injured because the pulse was found by Dr. Pavy on the evening of 24th July, by Dr. Harris on 26th July, and upon the child's admission to the Adelaide Children's Hospital on 7th August. This is, however, not conclusive. It is possible that the ulnar artery was injured at the time of the fracture and whether it was is regarded as a more open question because that pulse is not normally detectable in a young child and quite understandably no attempt was made by any of the doctors who treated the appellant to discover whether there was a pulse. All the medical evidence recognised the possibility that the damage which was done at the time of the fracture led directly and without any intervening contributing cause to the deformed condition of the arm and hand. Some, viz. Dr.Pavy and Dr. Lindon, go further and regard all that happened as the inevitable consequence of the damage done at the time of the fracture. Dr. Pavy's opinion was that the fractured bone ploughed through the muscles and nerves of the arm and cut off their blood supply completely, damaging them irreparably so that the final condition was inevitable. Dr. Lindon's opinion was that the gross damage to the muscle bellies and the small nutrient arteries in the vicinity of the fracture of itself caused all that happened subsequently. Both these opinions stress damage other than vascular damage

as the cause of the ischaemia. Dr. Lindon's opinion had a large measure of support from Dr. Sidey who considered however that at some stage there must have been a cutting off of the blood supply through a main artery, probably the ulnar. Both Dr. Rieger and Dr. Wilson think it impossible to account for the damage to the child's hand and arm without assuming vascular damage at some time. I have reached the conclusion that the opinions that attribute everything to damage caused at the time of the fracture go too far and the probability is that while the fracture did interfere in a substantial way with the circulation of the blood in the arm, this interference was aggravated or some further interference occurred subsequently and that vascular obstruction, probably by spasm, cut off an arterial supply of blood and caused the condition from which the appellant suffers. This conclusion is based upon the great damage that must have occurred at the time of the fracture with the likelihood of circulatory trouble; the condition of the child on the evening of 25th July when a nurse reported that he was miserable, that the plaster was tight, that his hand was swollen and its colour poor; the signs consistent with some circulatory embarrassment observed by Dr. Harris on 26th July; the temporary improvement following what was done by Dr. Harris on 26th July followed by the deterioration described in the nurses' reports of 28th and 29th July, namely, fingers swollen, colour poor, unable to move fingers; the temporary improvement following the splitting of the plaster on 29th July but again deteriorating to the irremediable condition observed at the Adelaide Children's Hospital on 7th August. Looking backwards now the picture, as Dr. Sidey said, is of a general but not a continuous decline; Dr. Wilson also gave the weight of his opinion to the possibility of an extension of a minor and probably

unrecognisable vascular disturbance in which outside influences played a part. Upon the whole I have reached the conclusion that the fracture itself caused some injury in addition to gross damage to muscle bellies and nutrient arteries in its immediate vicinity either in the way of damage to a main artery which at the time did not bring about complete obstruction, or in rendering the main arteries more susceptible to an obstruction which thereafter occurred; and that in either event the constriction brought about by the plasters, by reducing collateral pathways for the blood, did in a measure contribute to the end result which was due principally to vascular obstruction following vascular damage. I do not think that the evidence makes possible any finding that vascular damage occurred when Dr. Pavy reduced the fracture on 24th July or when Dr. Harris did so on 26th July or that either reduction contributed to any vascular damage. With regard to the reduction on 26th July I would observe that occurrence and observation of symptoms of circulatory trouble on 28th and 29th July is not of itself sufficient to link the two as cause and effect, especially since it now seems that there had been some circulatory trouble noticeable as early as 25th July.

The general conclusions that I have just stated are entirely consistent with the findings of the trial judge although I have gone further than he did in expressly finding that the constriction of the plasters did contribute to the end result by interfering with collateral or alternate circulation. This is, however, a finding which the history of the case and the expert evidence not only warrants but, I think, compels. The trial judge did not accept the opinion that the fracture was the sole cause of the appellant's infirmity and on two occasions he used language which points

to his acceptance of the view that the damage to the muscle bellies and nutrient arteries was not sufficient to account for all that followed and there must have been obstruction to one of the main arteries. He said: "It appears to be undisputed that obstruction of the blood supply may take place at one or other of several times. In the present case it may have happened at the time of the fracture, at the first manipulation, or at the second manipulation; and it may perhaps have followed the application of a plaster cast. There is, however, no evidence to show definitely when it did occur" and "it is likely that if operative treatment had been given, the precise site and nature of the obstruction to the blood supply would have been ascertained."

It is now necessary to consider the case made against each of the respondents bearing in mind the following warning given by Denning L.J. in Hoe v. Minister of Health 1954 2 Q.B. at pp. 86-87 ". . . we should be doing a disservice to the community at large if we were to impose liability on hospitals and doctors for everything that happens to go wrong. Doctors would be led to think more of their own safety than of the good of their patients. Initiative would be stifled and confidence shaken. A proper sense of proportion requires us to have regard to the conditions in which hospitals and doctors have to work. We must insist on due care for the patient at every point, but we must not condemn as negligence that which is only a misadventure", and bearing in mind too how easy it is to be wise after the event.

The main case against Dr. Pavy is that knowing that the fracture was a bad one and apprehending circulatory damage which might cause the appellant the loss of his arm, he nevertheless reduced the fracture and put the arm in a complete plaster. It is also said that he failed to communicate to the

other doctors what he had discovered when he saw and treated the appellant on 24th July. The trial judge found that Dr. Pavy was not negligent and with that I agree. All the evidence is that it was proper to reduce the fracture as he did so long as risks of damage to the circulation of the blood were not taken in the pursuit of anatomical perfection in the alignment of the broken bones. This was the course that Dr. Pavy followed and the reduction that he achieved by not attempting too much was described as "borderline" meaning thereby that it was a nice question whether it should be accepted or a further reduction should be attempted later on to improve it. Dr. Pavy himself anticipated that a further reduction would be desirable and asked Dr. Howard to get Dr. Harris to see the patient on 25th July to decide whether there should be a second reduction. The plaster that Dr. Pavy applied was padded and although it seems that there are two opinions about completing a plaster in such a case Dr. Rieger, whose evidence was that it is customary at the Children's Hospital not to complete a cast until all signs of swelling have disappeared from the injured limb, gave the following evidence: "Q. Taking the case history, in this particular case - at the time of the admission if the colour of the hand was good, the pulse was good, and having regard to the nature of the fracture, it called for immediate manipulation. A. Yes. Q. If that manipulation was done under an x-ray screen, it is difficult to know what further a surgeon could do at that stage. A. He could not do anything. In a padded plaster cast would be quite the usual method of treatment. Q. About the only other thing a surgeon could do was to see proper warnings were given about further watching. A. Yes." The notes of Dr. Wilson's evidence bearing on this matter are as follows: "Q. The Children's Hospital don't go in for the fixed plaster while there is swelling. A complete cast. A. They use a

back cast with a soft encircling, with a gauze encircling bandage. Q. There are various surgical techniques in relation to a setting of an arm. A. Yes. Some surgeons adopt the padded cast. The idea of the padding is to provide a space for swelling." The evidence satisfies me as it satisfied the trial judge that it was not negligent of Dr. Pavy to reduce the fracture and to set the arm in a complete padded plaster cast. From the fact that the plaster did on 25th July seem to be too tight it might perhaps be inferred that Dr. Pavy should have set the arm more loosely but against this there are the circumstances that a cast to be effective must hold the arm firmly at the top and the bottom, that the cast was padded on account of anticipated swelling which no doubt occurred and that Dr. Pavy anticipated that Dr. Harris would examine the arm the next day. Dr. Pavy did in cross-examination give evidence that he suggested to Dr. Howard that if there was any swelling the plaster might have to be split but after carefully examining Dr. Howard's evidence which was taken de bene esse before the trial I am not satisfied that he did so. Independently of this, however, I agree with the trial judge when he said, "Upon the evidence I am not prepared to say that he failed in any way to meet the situation with the necessary skill and attention and I cannot see that any negligence on his part has been proved." As to the alleged failure to warn Dr. Howard or Dr. Harris that the fracture was a serious one from which complications might be expected, all that it is necessary to say is that the x-ray photograph taken by Dr. Howard at the time of the admission of the appellant was there for all to see and told its own story; if more were to be thought necessary it is to be found in the evidence of Dr. Howard that she discussed the case with Dr. Pavy when she showed him the x-ray and that she was aware of the possible complications. There is no ground for upsetting the judgment in favour of Dr. Pavy.

The case against Dr. Howard rests entirely upon what she did or failed to do on 25th July. She had taken the x-ray photograph on 24th July; she was present when Dr. Pavy reduced the fracture on 24th July; she knew it was a serious fracture and there might be circulatory trouble though on 24th July she saw no sign of circulatory damage. She saw the appellant with Dr. Harris on the morning of 25th July when to both doctors the condition of the patient seemed satisfactory in that although the hand was a bit swollen the colour was good and the movements normal. It was on the evening of 25th July that Dr. Howard was notified that the plaster was too tight and thereupon she saw the plaintiff. Her evidence as to what she saw and thought is as follows: "I saw the patient that same evening. On that evening the patient complained of pain but the appearance of the hand was much the same as in the morning, no change in colour and movements still good. I started to try and split the plaster but it caused more pain for the child so I didn't continue with that. My purpose was to try and relieve the pain, I didn't think it was actually necessary but if I could have eased it without hurting him it would have eased the pain a little. I probably ordered treatment, a sedative, I don't really remember." . . . "My purpose in attempting the split of the bandage was to ease the pain for the child if I could do it fairly easily, as it is painful while it is being done. From my reading and knowledge as medical practitioner that relief from external pressure such as by a tight plaster, is one of the steps to be taken when there is evidence of circulatory damage, that is correct. I didn't do it for that reason." . . . "When he came in he was obviously in pain. There was evidence that part of the bone had been shattered. The next time I heard him complain of pain was definitely the Sunday evening, and

probably the Sunday morning to some extent. On Sunday night his complaint was such as to indicate his pain was severe. In all the books that is taken as one of the signs one has to look for for an onset of the condition referred to earlier, in combination with other signs. I would have expected pain on the Sunday night if there had been no complications. He complained of pain to me on the Sunday night. I took the pain to be moderately severe. I made an examination after he made that complaint. I looked at his arm, his hand especially, made him move the fingers, and noticed the colour to be normal, and there was mild swelling, to be expected with the plaster on, but colour was good, and he had normal movement of the fingers. He had pain and moderate amount of swelling. They are two things found shortly after any severe fracture. They are two things also found evidencing the onset of Volkmann's ischaemic condition, but not mild swelling; mild swelling and severe pain could be symptoms on that Sunday night evidencing the onset of that condition." In the light of what happened it seems probable that some ischaemic process was going on on the evening of 25th July and it would have been better to have relieved the pressure of the plaster that evening rather than leaving it for some twenty-four hours when the second reduction was done but apparently Dr. Harris had on the morning of 25th July decided provisionally at least to reduce the fracture further on the morning of 26th July and on the basis of her evidence it is quite understandable that Dr. Howard decided that she would not proceed with the splitting of the plaster on the evening of 25th July. I agree with the trial judge that the judgment exercised by Dr. Howard was not negligent even if possibly it was wrong. Furthermore, in the light of what happened later I can find no basis for attributing the final condition of the appellant's arm and hand

to anything that happened on the night of 25th July. For these reasons I have reached the conclusion that this Court should not interfere with the judgment in favour of Dr. Howard.

Dr. Harris decided to reduce the fracture further to get a better anatomical result than that obtained by Dr. Pavy and this he succeeded in doing. Whether it was wise to have done so is debatable because the result which Dr. Pavy had obtained was regarded by everyone as "borderline" in the sense already stated, but taking into account the whole of the medical evidence I have reached the same conclusion as did the trial judge that it was not negligent of Dr. Harris to reduce the fracture further. He had the opinion of Dr. Pavy that an attempt should be made to get a better position and after study of the x-ray photographs and examination of the arm he decided to do so. In his examination on 26th July he found some swelling of the fingers and hand which he regarded as consistent with normal treatment of such a fracture. He said there were signs suggesting some embarrassment of circulation such as are usually seen after a severe fracture. These signs, other than swelling, were not specified but whatever they were, they were not regarded by Dr. Harris as unequivocal signs of circulatory damage. Dr. Harris described the way in which he obtained what all agreed was a very good anatomical result by saying "I had no difficulty in manipulating to get that particular position. I got it by manipulation that was no more than gentle. I was conscious of the possibility of some more damage by manipulation." Not only do I think that the finding that it was not negligent of Dr. Harris to have reduced the fracture as he did was proper but as I have already said there is no evidence to warrant any finding that circulatory damage was done to the appellant in the course of his manipulation and reduction.

After the reduction Dr. Harris set the arm in a padded plaster which he completed. To do this was not itself negligent for substantially the same reasons as those given for finding that Dr. Pavy was not negligent in doing the same thing on 24th July.

On 27th July the condition of the appellant seems to have improved somewhat. It was reported that he slept well on the night of 26th July and Dr. Harris said that on 27th July he was satisfied there was no swelling or discolouration of his hand and that there was normal capillary circulation and ability to move fingers. Nevertheless, the nurse's day report for 27th July showed that the appellant was fretful and complained of pain in the arm most of the day and was given A.P.C., phenobarb and pethedine on the direction of Dr. Harris. Pethedine is a potent analgesic and has some sedative action. On the night of 27th July the appellant cried until 11 p.m. and then slept. On 28th July his condition certainly deteriorated. The nurse's night report was "Fingers swollen and colour poor" and this was followed by a day report on 29th July "Arm painful, fingers swollen, colour poor. Unable to move fingers today." The appellant's father and mother saw him on 28th and 29th July and the effect of their evidence is that the child complained of pain at the top of the plaster and was drowsy. Mrs. Young said that the child also complained that "his hand felt quite funny". Dr. Harris said that on 29th July the condition was unsatisfactory, that the fingers were swollen, a little dusky and stiff. He therefore cut a double line panel of plaster one half inch wide running the full length of the plaster, took out the padding along the line of this split and wedged the opening back; he wedged it back further on the following day. An entry in the nurses' book for 30th July states that the plaster was cut on that day but I am satisfied that notwithstanding this entry it was in fact cut on 29th July. There is no doubt that it was proper to relieve the pressure of the

plaster and the only criticism that can be made of what was done is that more should have been done and it would have been better to have removed the plaster entirely. It seems clear that the plaster had become too tight because of the swelling of the arm. This is what Dr. Harris told Mrs. Young. The splitting did produce beneficial results on the days following and the reluctance of a doctor in the situation of Dr. Harris to remove the plaster entirely is readily explained by reference to the displacement of the fracture that did occur when the plaster was removed at the Adelaide Children's Hospital on 7th August. Dr. Harris was satisfied with the results that followed the splitting of the plaster and on 2nd August decided that the appellant was fit to be discharged and in anticipation of his discharge he completed the plaster loosely as he says "so as not to lose any of the space gained by the cutting and wedging of the plaster". On 3rd August Dr. Harris discharged the appellant from the hospital. I cannot escape the conclusion that Dr. Harris was seriously mistaken as to the condition of the appellant on 3rd August. Although the hospital's temperature charts for the appellant have been lost, it is reasonably clear that his temperature which was 100 deg. on 29th July was slightly higher at 100.6 deg. on 1st August and had fallen only to 99.6 deg. on 2nd August. There is no record of his temperature on 3rd August. Dr. Harris said, "My impression was he didn't have a temperature when he was discharged. I shouldn't have discharged him if he had. He had been running a temperature not long before." Furthermore the nurses' reports had revealed persistent crying that they thought worth noting up to and including 1st August and the giving of A.P.C. or aspirin "with effect" or "with good effect". On 1st August the note is "Asp. tabs. two given at 8 a.m. Give four-hourly as necessary." This

evidence of temperature and pain just prior to the day of discharge is, however, of much less importance than that which deals with the condition of the appellant's arm following his discharge from hospital. When the appellant was admitted to the Adelaide Children's Hospital on 7th August his arm and hand were in the alarming condition already described and there is the opinion of Dr. Rieger that the contracture which was then observed had existed and been detectable for a week, but that is not all. There is in addition the evidence of the appellant's mother and a friend of hers, Mrs. Heath, that on the afternoon of 3rd August the child's fingers were swollen, blistered and discoloured and the further evidence of the boy's father and Mr. Heath that this was the condition of the hand on 4th August when they took the child to a chemist in Naracoorte and telephoned Dr. Kranz in Adelaide. This evidence the trial judge believed. Dr. Harris gave evidence that there were no blisters on the boy's hand on the morning of 3rd August. The trial judge regarded Dr. Harris as a witness of truth whose evidence on a number of matters was to be preferred to that of the Youngs but on this point he accepted the evidence of the Youngs and the Heaths and found that there were blisters on the boy's hand when he was discharged from the Naracoorte Hospital. He explained Dr. Harris's failure to observe these blisters by saying: "It may be that Dr. Harris is mistaken in his recollection of what he saw at the time when the plaintiff was discharged, as his glance at the plaintiff's hand was casual, and it is likely that the gauze around the plaintiff's hand obstructed a full view." To this it is proper to add that the boy's mother did not see the blisters when she was at the hospital nor indeed until she had taken off his pyjama coat the sleeve of which may have covered the hand. Reed J. did

not explain, however, how it was that Dr. Harris failed to see the blisters if, as he said he did, he made a careful examination of the boy's hand earlier on the morning of 3rd August. Upon reviewing the evidence as a whole I am left with the conviction that the boy should not have been discharged from the hospital when he was and that Dr. Harris was at fault in not seeing that the condition of the hand had between 2nd and 3rd August deteriorated so badly. This is, I think, the only negligence that has been established. With regard to this part of the case against Dr. Harris Reed J. said: "Upon the question whether he ought to have known that the plaintiff's arm was in a dangerous condition, I think the answer is that it has not been shown that the plaintiff's arm was in a dangerous condition; and that the evidence does not establish that Dr. Harris ought to have known, or reasonably suspected, that the plaintiff's condition would develop into what it became a few days later." As to this I have come to the conclusion that although the boy should not have been discharged on 3rd August, there is no evidence sufficient to connect the ultimate condition of the arm and hand with that mistaken discharge. I have anxiously considered whether there should not be a new trial to ascertain whether there was any relationship of cause and effect between the two but I have eventually reached the conclusion that the only proper ground for ordering a new trial would be that there is evidence sufficient to justify a conclusion that there was, leaving the assessment of damages as the only further question. This course is not open on the evidence and the appeal against the judgment in favour of Dr. Harris must accordingly fail.

The claim against the hospital was made upon the footing that it was liable for the negligence of the doctors. As the appeals against the judgment in favour of the doctors fail, so must the appeal against the judgment in favour of the hospital.