

## An Unusual Bathing Fatality.

By J. B. LIGGINS.

While drowning is a common accident in New Zealand, we are fortunate in that attacks from denizens of the sea are few and far between. Shark tragedies such as are experienced in Australia are uncommon.

An unusual fatality occurred in the Hauraki Gulf, ten miles from Thames, on a recent Sunday. A girl of 18 was bathing with her fiancé. There was a heavy off-shore wind blowing, making very smooth sea conditions in the shallow water. It was dead low water at the time—4 p.m. She was wading in under three feet of water close to the shore. Suddenly she called out for help and the man with her rushed to her aid. She collapsed immediately and was carried ashore. A passing motor van was requisitioned to take her to Thames. It was reported that she was breathing when placed in the van but stopped soon afterwards.

I saw her on her arrival at Thames. She was then dead. The Coroner ordered a post mortem examination which I carried out that evening, and I think my findings are of sufficient interest to record; first because of the unusual nature of the injuries, and secondly because of the possible medico-legal complications.

When I examined her after the accident I found her to be a well-developed female about twenty years of age. She was clad in a blue bathing suit which was wet, and there was sand adhering to her skin. She had died very recently.

On external examination, the bathing suit had a six-inch ragged tear over the precordium. Coinciding with this tear was an incised wound exposing the intercostal space. There were three wounds on the inner aspect of the left thigh.

At the post-mortem examination, which I performed later in the evening, the following findings were made:—

### EXTERNAL INJURIES.

1. *Chest Injuries.*—An incised wound two inches long and gaping open an inch wide was present running parallel to the fourth left intercostal space about  $1\frac{1}{2}$  inches from the mid-sternal line. In the middle of the depth of the wound the intercostal space had been perforated and there was a circular hole which would admit the first finger. Blood issued from the perforation when pressure was put on the chest.

2. *Injuries to the Left Thigh.*—On the inner aspect of the left thigh in its upper third there were two parallel wounds two inches apart running from the anterior to the posterior aspect. These were clean incised wounds down to the deep fascia but not penetrating it. Between these two wounds was a further incision two inches long but involving skin only.

Close to the labia on the left side, but still on the thigh, was a superficial wound in which the skin was peeled back over an area the size of a florin.

3. On both knees were superficial scratches and bruises.

#### INTERNAL INJURIES.

Immediately under the perforation in the fourth intercostal space already described, a tear was found in the pericardium about  $1\frac{1}{2}$  inches long. On my opening the pericardium a gaping incision was found on the anterior surface of the right ventricle. It was a horizontal, clean-cut incision showing a slight double curve, and measuring an inch in length. The edges of the wound were slightly serrated and there was bruising of the tissues around the wound. There was a perforating wound of the interventricular septum and also of the left ventricle on its left border near the base. This wound of exit measured  $\frac{3}{8}$ " in length. The heart had thus been transfixed by a somewhat rough, pointed instrument. The pericardium and the left pleural cavity were filled with blood.

The lungs were free from water and there was no other evidence of drowning.

At the inquest the man who helped the unfortunate woman from the water stated that when she called for help she pointed at the water and he noticed a swirl and what he took to be a fin.

The Coroner found that the cause of death was hæmorrhage from a wound transfixing the heart caused by the barb on the tail of a sting-ray.

The case I have described was undoubtedly a most unusual accident. Its medico-legal aspect is interesting. If the girl had been found by herself dead on the beach the police would certainly have looked for a murderer of the sexual pervert character. The wounds looked as if they had been made by the sharpest of knives and the penetrating wound of the heart was typically homicidal. The sting-ray must have been of very large size, the barb being at least eight to nine inches long, as the distance between the skin incision in the precordium and the exit perforation on the left ventricle was eight inches.

Reconstructing the fatality from the evidence a fair assumption would be the following:—While the sea was very calm due

to a heavy off-shore wind and a very low tide, the bather walked on a sting-ray which was sheltering in the shallow water. It immediately lashed her with its barb, cutting her leg in three places. She was knocked off her feet and on falling forward the fish again brought its barb into action, this time penetrating the chest wall and heart.

I have seen three cases during the last few years in which perforating wounds were caused by sting-rays. They were received by fishermen who were either clearing the sting-ray from their net or dumping it overboard from their boat. Two of these wounds were through the calf and the other through the wrist, severing several of the extensor tendons. All the wounds became septic, and when first seen were characterised by extreme pain needing  $\frac{1}{2}$  grain doses of morphia.

It is known that no poison is secreted by the sting-ray, but on examining a tail and barb recently I noticed a covering of dirty yellow slime, and it may be that this contains some acrid substance. In any case, the amount of pain was out of all proportion to the severity of the wound. It is known that, in common with most fish, a sting-ray will always swim away if disturbed. It has never been known to attack a person as does a shark, but will defend itself very ably if it cannot escape. This case shows that there is need for care in bathing on our northern beaches, which are infested with sting-rays. In such cases as do occur of injury by sting-ray barbs, the wounds are intensely painful and particularly prone to become infected.

#### SUMMARY.

1. A case is described in which a girl, whilst bathing in shallow water, was stabbed to death by a sting-ray.
  2. The injuries simulated homicidal stab wounds of the heart.
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