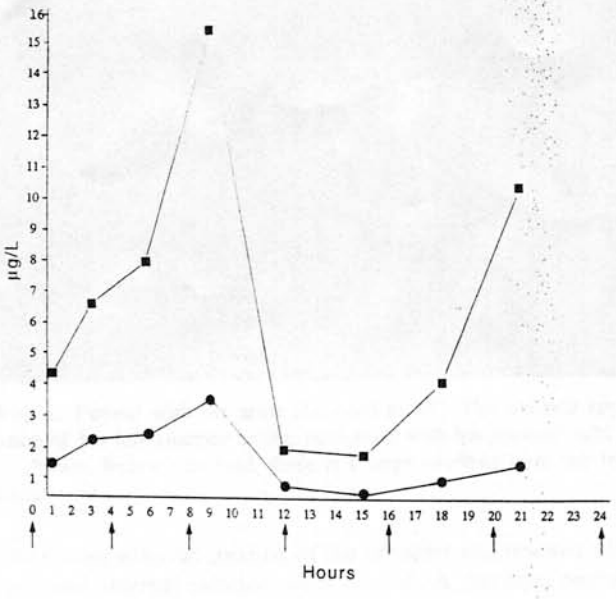

Fig. 1. Nimodipine levels (↑, 60 mg oral nimodipine) in plasma (—■—) and in breast milk (—●—).

behaviour has been reported for the related calcium antagonist nifedipine.[4]

Oral nimodipine demonstrates widely fluctuating plasma concentrations due to its extensive metabolism, and the rapidity with which it reaches its maximal plasma concentration.[3] The asynchronous sampling of nimodipine in this study demonstrates this variation clearly, and this study serves to highlight the close relationship between plasma and breast milk concentrations.

Oral nimodipine has an elimination halflife of 1.7 to 9 h in healthy individuals. There is no evidence of drug accumulation, and all metabolites are either inactive or substantially less active than the parent drug.

Given that five half lives are required for a drug to reach its steady state, it is advised from this study that breast-feeding be withheld for at least 45 h following cessation of oral nimodipine.

ACKNOWLEDGEMENTS

The author gratefully acknowledges the assistance of Dr D. Beerman and Dr W. Muck of Bayer AG, Wuppertal for performing the analysis, and Ms J. Parker of Bayer NZ for logistical support.

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Aust. N.Z. J. Surg. (1995) **65**, 694–695

CASE REPORT

A RARE COMPLICATION OF PECTORALIS MAJOR RUPTURE

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Pectoralis major rupture is an uncommon injury. Only 85 cases have been reported in the literature. Rupture may be partial or complete. The treatment of partial rupture is conservative, whereas in cases of total rupture surgical repair is advocated, particularly in young active patients. Complications are few. We describe a case of infection of the haematoma following a partial rupture. To the best of our knowledge it is the first case to be reported in the English literature.

Key words: haematoma, partial rupture.

CASE REPORT

A 25 year old man was admitted with a painful swelling over the left chest wall. Two weeks prior to this he was attempting to push a deflated bouncy castle and felt a painful snap in the anterior aspect of the left axilla. The injury was treated with heat and rest by his doctor. One week later he noticed a gradual swelling over the chest wall.

His temperature on admission was 37.5°C. There was a tender indurated swelling in the anterior axillary fold over the pectoralis major (Fig. 1). An effort to contract the pectoralis muscle against resistance accentuated this swelling. Passive

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Accepted for publication 18 August 1993.

Fig. 1. Patient with his arms abducted to 45°. The webbed appearance of his left anterior axilla, compared with his normal right side is shown. Below this fold, there is a large swelling over the lateral chest wall.

abduction, external rotation of the shoulder and resisted adduction and internal rotation were painful. A ruptured pectoralis major was diagnosed.

In addition, there was a swelling measuring 10 × 6 cm over the lateral chest wall which extended 2 cm below the axillary margin. (Figs 1, 2). It was slightly tender and fluctuant. His haemoglobin was 11.2 g/100 mL and the white cell count was 11 500 cm^3. Blood culture was negative.

The swelling was explored and 1.5 L of frank pus was drained from an abscess lying over the lateral chest wall. At surgery the sternal part of the pectoralis was found to be partially torn at the musculotendinous junction. The wound was closed.

When cultured, the pus grew β haemolytic *streptococcus* Group A. His symptoms settled after treatment with amoxycillin which was continued for 2 weeks.

The shoulder was immobilized in a sling for 3 weeks, after which gentle exercises were commenced. Three months after surgery, he was asymptomatic and had a full range of movement at the shoulder.

DISCUSSION

The true incidence of pectoralis major rupture is probably greater than appreciated because most patients with partial rupture do not see the specialist.

Fig. 2. Swelling over the lateral chest wall with patient in right lateral position.

Rupture occurs from excessive tension or direct trauma.[3] In this case it occurred due to excessive tension caused by pushing a heavy object.

Complications are rare. Ronchetti stated that 'several cases have resulted in death by suppuration of haematoma', but he gave no further information.[1] In the antibiotic era, such an outcome seems improbable.

A feature of this case is that infection occurred after a delay of one week. It is possible that a small haematoma formed which had subsequently become infected and which led to an enlargement of the swelling. The local signs of inflammation were equivocal. The mild fever was the most obvious pointer to the infected haematoma.

Clinicians should be aware of the possibility of infection in haematoma complicating pectoralis major injuries.

ACKNOWLEDGEMENT

We wish to thank Mr Manoj Krishna, St Helen's Hospital, Jersey for his help in preparing the manuscript.

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