

## SEA URCHIN GRANULOMA

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A case of sea urchin granuloma is reported in a young man

**Key word :** Sea urchin granuloma

Sea urchins are spiny marine animals of the class Echinoidea of the phylum Echinoderma.<sup>1</sup> Sea urchin injuries are extremely rare in our practice. Here we report a case in whom granulomatous lesions developed following injury with sea urchin spines while harvesting oysters from rocky sea bottom.

### Case Report

A 24-year-old man developed painful papulonodules on the back of the fingers and

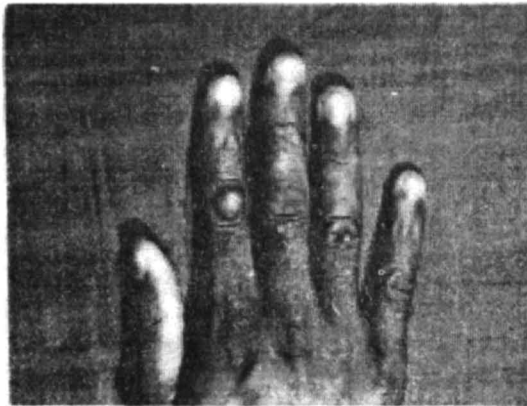


Fig. 1. Showing a nodule over the dorsum of index finger and several developing lesions on the ring and middle fingers.

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toes since 2 weeks. Lesions were discrete, smooth to firm consistency and were of 0.5 to 1.5cms in size with central crateriform depressions. The largest was on the dorsum

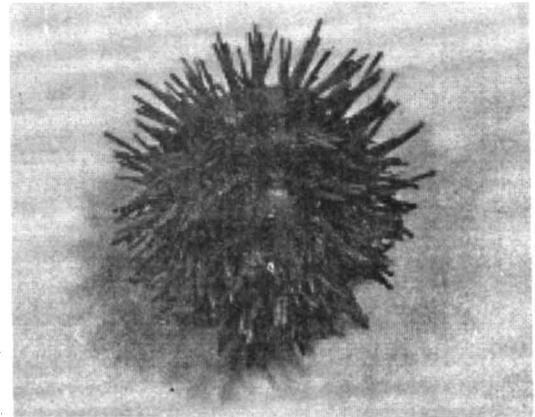


Fig. 2. Ventral view of the commonly met with sea urchin - *Toxopneustes pileolus*

of the right index finger (Fig. 1). It was not fixed to the underlying bone or joint. On the right sole there were two similar tender lesions but were more hyperkeratotic. Routine investigations including x-ray of the hands and feet were normal. A biopsy of the nodule showed moderate hyperkeratosis, parakeratosis and acanthosis. There was a compact granulomatous infiltration in the middermis comprising of histiocytes, epithelioid cells, a few foreign body giant cells,

lymphocytes and plasma cells. The blood vessels were dilated and showed perivascular inflammatory infiltrate.

### Discussion

Sea urchin granuloma is an occasional but well recognized skin problem in sea bathers. Jelly fish stings, sea bather's eruption and injuries from sea sponges or sea urchins are never brought to the attention of the dermatologists here. Sea urchin injuries can result in sepsis, inclusion dermoids and foreign body granuloma.<sup>2</sup> Granulomatous bony destruction following such injury is also reported.<sup>3</sup>

There are 2 kinds of sea urchins in our sea coast. One is greyish-white (Fig.2) and the other one violaceous. The greyish-white belongs to the species *Toxopneustes pileolus* and the violet '*Stomopneustes variolaris*'. Injuries from the latter are more painful. The pain and bleeding are quite out of proportion to the degree of injury or to contamination with sea water. The spines lodged on the hands are left for a day or two when it becomes easy to pick them out with a needle. Cellular reactions to fragments of spines or sand introduced by spines appear soon after injury, but granulomatous reaction may set in 3-6 months later. Hence the doubt that this delayed reaction is due to contamination of the wounds from atypical mycobacterium is still valid.<sup>4</sup> But apparently everyone who collects oysters does not suffer from adverse effects following these injuries. This may be due to the fact that only a small proportion of local sea urchin population harbours these

mycobacteria at any given time.

The possibility of a histiocytic reaction due to *Mycobacterium balnei* was suggested by Bruck and Hellestrom.<sup>5</sup> But so far only one report has claimed demonstrating acid-fast bacilli in pooled tissues.

Sea urchin injuries can be prevented by wearing protective foot wear or gloves. However, spines can sometimes penetrate wet-suits and accidents can occur, Spines should be removed intact, as possible, with the aid of ethyl chloride spray or other local anaesthetics. Poultices or skin softeners can be used to remove spine pieces in wounds.<sup>3</sup> Bathing in hot water is found to be very effective to relieve pain. Clean dry dressings with or without local or systemic antibiotics can be given for wound healing.

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