DATE PALM THORN SYNOVITIS

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We have reviewed seven cases of synovitis caused by date palm thorns, six involving the knee and one the ankle. Five were satisfactorily treated by thorough irrigation of the joint with normal saline, but two required arthrotomy and synovectomy. All made a full recovery.

The date palm is common in the Sultanate of Oman and neighbouring Gulf countries and thorn prick injuries are often seen (Fig. 1). Palm thorn synovitis has been reported from California (Cahill and King 1984) and blackthorn synovitis has been reported from Great Britain (Kelly 1966).

We report seven cases of synovitis due to date palm thorn seen and treated in one year. Cahill and King (1984) advocated synovectomy as the best treatment but we have found that aspiration and irrigation of the joint is adequate in most cases.

PATIENTS AND METHODS

Seven patients with synovitis due to date palm thorn (*Phoenix canarensis*) prick were seen at Khoula Hospital and Royal Hospital, Muscat during 1988. Six of these cases involved the knee and one the ankle. There were six males and one female, with ages ranging from 5 to 33 years (average 11.5). All the patients gave a definite history of palm thorn injury. The interval between the injury and their first visit to the hospital ranged from three days to five months (average 9.5 weeks).

All the patients had pain and effusion in the involved joint with restricted movements and function. All were admitted to hospital and had routine blood investigations. Four of the knee cases were treated successfully by aspiration and irrigation using two wide-bore cannulated needles (1.6 mm gauge) to wash the joint with copious amounts of normal saline.

The other two knee patients had repeated aspiration and irrigation of the knee, but continued to show signs of synovitis, and were subsequently treated by arthrotomy and synovectomy, removing all the inflamed synovium that was accessible through an anterior arthrotomy. The patient with synovitis of the ankle was treated primarily by arthrotomy for removal of a thorn fragment, because the clinical history and examination suggested that a fragment remained embedded in the joint. Following arthrotomy the ankle was irrigated with saline and the
The date palm tree bears thorns 10 to 15 cm long, which can easily pierce joint cavities. All our patients gave a definite history of thorn prick, which helped to avoid delay in diagnosis, nevertheless there was an average delay of 9.5 weeks, very similar to the 10 weeks reported by Cahill and King (1984).

Palm thorn synovitis is usually mild; the initial symptoms are often tolerated, delaying presentation for treatment. The main differential diagnosis was septic arthritis which is quite common in our practice. Our patients usually presented with a painful effusion in a warm joint associated with a low grade fever, and all had normal WBC and ESR. These simple blood investigations are fairly reliable in differentiating palm thorn synovitis from septic arthritis.

Cahill and King (1984) recommended arthrotomy and extensive synovectomy for all cases of palm thorn synovitis. Four of our seven cases were cured by irrigation of the joint with normal saline without synovectomy. Irrigation must be very thorough, using large volumes of saline to remove all toxic material. Synovectomy can then be reserved for those cases which fail to respond. All our patients recovered full movement and normal function.

**Conclusion.** The diagnosis of date palm thorn synovitis is based on the history, and simple blood investigations help to differentiate it from septic arthritis. Initial treatment should be by irrigation with normal saline; synovectomy should be reserved for recurrent synovitis.

We thank Mrs Geetha Chidambaram for typing the manuscript and for secretarial help.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

**REFERENCES**


