

## INTRAOSSEOUS GANGLION OF THE TRIQUETRUM A TRANSPISIFORMAL APPROACH

L. DE SMET, H. VAN RANSBEECK

A cystic subchondral bone defect without joint pathology is called an intraosseous ganglion. Most occur in the lower limb. In the wrist the scaphoid and lunate are most often involved. We report a case of an intraosseous ganglion within the triquetrum, treated by curettage and grafting with the pisiform that had been removed.

**Keywords :** pisiform, grafting, intra-osseous ganglion, wrist.

**Mots-clés :** kyste intra-osseux, pisiform, greffe, poignet.

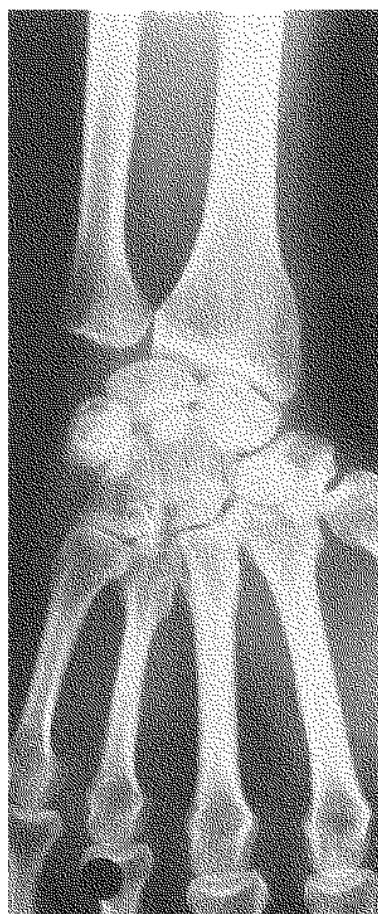
### CASE REPORT

A 40-year-old right-handed nurse presented with a history of ulnar wrist pain on the right side. No trauma or inflammatory disease was mentioned. The complaints had been present for 6 months.

On physical examination the flexor carpi ulnaris tendon was tender, and mobilization of the pisiform on the triquetrum provoked severe pain. The active range of motion was normal, and grip strength was 26 kg compared to 30 kg on the opposite side.

The radiographs revealed a radiolucency in the triquetrum with sclerotic margins (fig. 1) and degenerative osteoarthritis of the pisotriquetral joint. MRI confirmed the lesion (fig. 2) and the presence of fluid (low signal on T<sub>1</sub>-weighted images (fig. 2b) and a high signal on the T<sub>2</sub>-weighted image (fig. 2a).

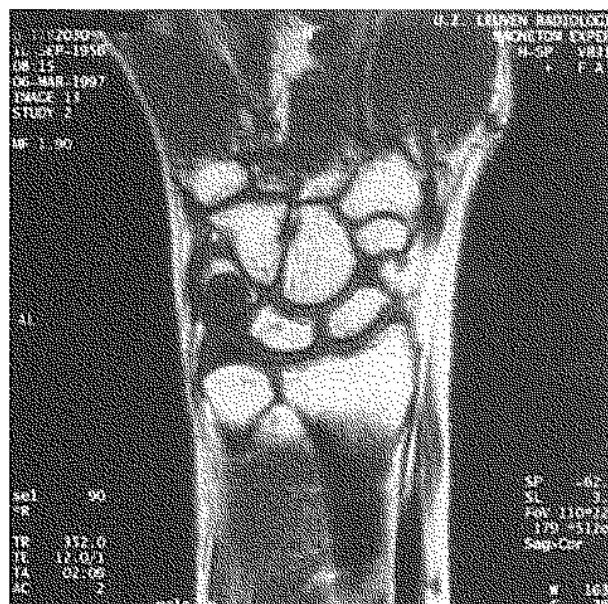
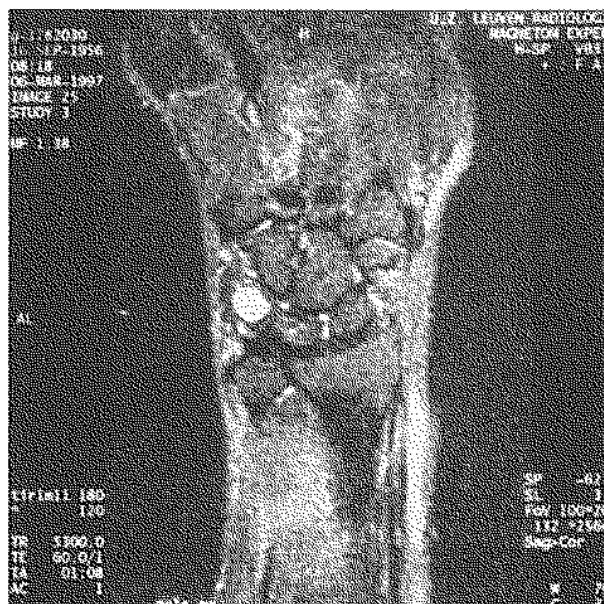
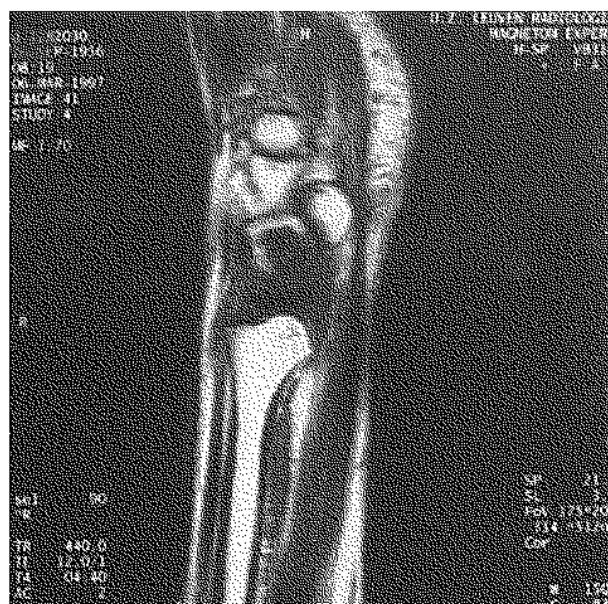
Surgical exploration was scheduled. A palmar approach was used, just over the insertion of the flexor carpi ulnaris, extending distally to the pisiform. The pisiform was removed piecemeal, and



*Fig. 1.* — Plain radiographs demonstrating the cyst in the triquetrum and the pisotriquetral osteoarthritis.

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**a****b****c**

**Fig. 2.** — MRI. a) AP view, T<sub>1</sub>-weighted image; b) AP view, T<sub>2</sub>-weighted (demonstrating a bright image of the triquetrum, consistent with high water content); c) lateral view, T<sub>1</sub>-weighted image.

the joint surface of the triquetrum was inspected. No communication with the cyst was seen. A cyst with a thick capsule was removed in toto after perforation of the joint surface. The cavity was filled with cancellous bone from the pisiform.

Histological examination showed fibrous tissue with myxoid degeneration. No synovial membrane was seen. Immediate postoperative mobilization was allowed. The patient's complaints disappeared over the following 7 weeks.

## DISCUSSION

An intraosseous ganglion in a carpal bone other than the scaphoid or lunate is rare (4). The symptoms are not very specific, and the diagnosis is usually obvious from typical radiological findings : a round radiolucent defect enclosed by a sclerotic rim. Most authors prescribe surgical treatment with curettage and grafting.

We found only 11 cases located in the triquetrum, out of 168 published carpal intraosseous ganglia (1-4). The transpisiformal approach does not disturb the carpal architecture and provides enough cancellous bone graft for packing the defect. It is an attractive alternative for these locations.

## REFERENCES

1. Eiken O., Jonsson K. Carpal bone cysts. A clinical and radiographic study. Scand. J. Plast. Rec. Surg., 1980, 14, 285-290.
2. Feldman F., Johnston A. Intraosseous ganglion. Am. J. Roentg. Radium Ther. Nucl. Med., 1973, 118, 328-343.
3. Maggee T., Rowedder A., Degnan G. Intraosseous ganglia of the wrist. Radiology, 1995, 195, 517-520.
4. Waizenegger M. Intraosseous ganglia of carpal bone. J. Hand Surg., 1993, 18-B, 350-355.

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## SAMENVATTING

*L. DE SMET, H. VAN RANSBEECK. Intra-osseuse kyste van het triquetrum.*

Een kystisch subchondraal defekt in het bot, zonder geassocieerde gewrichtspathologie noemt men een intra-osseuse kyste of ganglion. Meestal ziet men dit aan de onderste ledematen.

We beschrijven een geval in een os triquetrum, welke werd gecurreteerd via een transpisiforme toegangsweg.

## RÉSUMÉ

*L. DE SMET, H. VAN RANSBEECK. Kyste intra-osseux du pyramidal.*

Une lésion osseuse kystique sans pathologie articulaire associée, s'appelle un kyste intra-osseux ou ganglion. La majorité des cas se rencontrent au niveau des membres inférieurs.

Les auteurs rapportent un cas dans l'os pyramidal du carpe. Il a été cureté et greffé par une voie d'abord trans-pisiforme.