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Intraosseous ganglions at the same localization in twin sisters

İkiz kardeşlerde aynı yerleşimde intraosseöz gangliyonlar

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Karpal kemiklerin radyolüsen lezyonları arasında en sık görülen intraosseöz gangliyonlardır. Bu lezyonların el bileğinde en sık yerleşimi ise lunat ve skafoid kemiklerdir. Yirmi üç yaşındaki ikiz kız kardeşlerin sol el bileklerindeki ağrı nedeniyle başvurması sonucunda, fizik muayene ve radyolojik incelemede skafoid kemikte tek taraflı, simetrik lezyonlar saptandı. İki olguya da skafoid kemiklerdeki intraosseöz gangliyonlar nedeniyle gangliyon eksizyonu ve aynı taraf radius alt uçlarından alınan otogreft ile greftleme uygulandı. Hastaların üç yıllık izleminde el bileği ağrısının ortadan kalktığı görüldü. Eksize edilen lezyonların patolojik incelemesi intraosseöz gangliyon ile uyumlu bulundu. Olgularımızın ikiz kardeş olması ve tutulumun aynı tarafta ve aynı kemikte olması genetik geçişi düşündürmektedir. İntraosseöz gangliyonların genetik geçişine dair herhangi bir bilgiye rastlanmamıştır.

Anahtar sözcükler: Kemik kisti/cerrahi; küretaj; skafoid kemik; el bileği.

Among radiolucent lesions of the carpal bones, intraosseous ganglions are the most frequent. Most cases involve the lunate or scaphoid bones in the wrist. Two twin sisters aged 23 years were examined for the complaint of left-sided wrist pain. Physical examination and radiologic findings showed unilateral and symmetrical lesions in the left scaphoid bone suggesting intraosseous ganglions. Both patients underwent ganglion excision and grafting using autografts taken from the ipsilateral distal radius. Both patients were free of wrist pain during a three-year follow-up. Histopathologic examination of the excised lesions was consistent with intraosseous ganglion. Unilateral and symmetrical involvement of the same bone in these twin sisters suggests genetic transmission, which has not been previously reported for intraosseous ganglions.

Key words: Bone cysts/surgery; curettage; scaphoid bone; wrist.

Apart from intraosseous ganglions amongst radiolucent lesions of carpal bones, enchondroma, giant cell tumors and simple bone cyst are possible diagnoses. Intraosseous ganglions are most frequently observed to be located on lunate bones of wrist. They are located in the subchondral area and preserved their regular contours without any invasion in cortex.

Intraosseous ganglions are known to be among etiologies of painful wrist. The accepted treatment method in said cases is curettage and grafting.

Case presentation

One of identical sisters aged 23 consulted our polyclinic due to pain on her left wrist. The bilateral X-ray and MRI scan of her wrist revealed radiolucent, well and soft-contoured mass in the left scaphoid. According to what she described, her pain was of stinging nature increasing upon exertion and decreasing while resting. Curettage was performed for the cystic lesion located in the scaphoid bone under volar approach. The intraosseously located and elastic ganglion cyst which was 0.9x0.6 cm in size and pink-white in color was excised and grafting was performed via an autograft taken from the ipsilateral radius (Image 1a).

In her polyclinic controls, the patient noted that her twin sister had the same complaints. The bilateral X-ray and MRI of sister's wrist displayed a simi-

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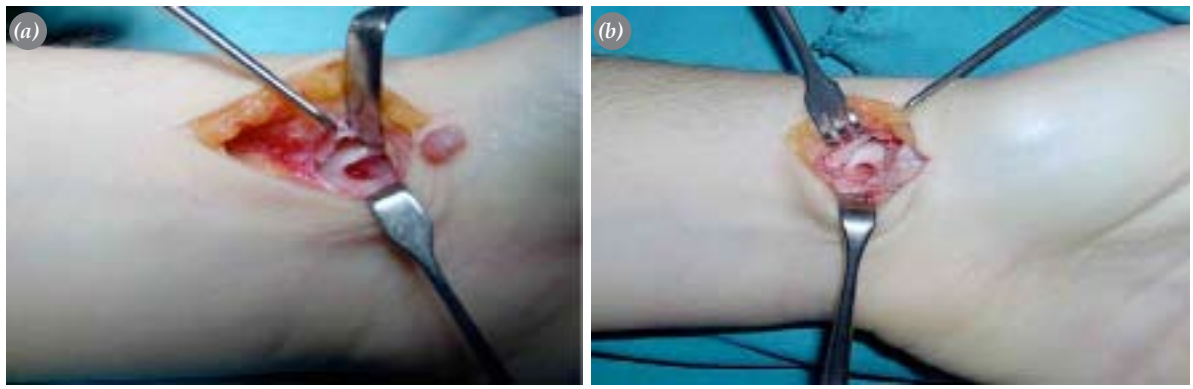

Figure 1. (a, b) Excision of intraosseous ganglions located in left scaphoids in both cases

lar lesion. She reported stinging pain exacerbating upon activity and attenuating while resting. The cyst on the scaphoid bone was reached through volar approach and the intraosseous ganglion of 0.7 x 0.5 cm and of similar nature was excised and grafting was performed via an autograft taken from the ipsilateral radius (Image 1b). During their 3-year follow-ups, they were observed to have no more pain.

Discussion

Intraosseous-like ganglion was first described in 1994 after a periosteal ganglion formed an intraosseous cystic mass by penetrating a little into the bone. The term "intraosseous ganglion" was first utilized in 1996. These ganglions are also called juxta-articular bone cysts, synovial bone cysts and subchondral bone cysts. The World Health Organization classified ganglion cysts in benign bone tumors and tumor like lesions and structures that reveal mucoid degeneration within the bone and have fibrous tissue.

Intraosseous ganglions are most frequently located in carpal and in particular scaphoid bones. Relevant studies have not provided any information on genetic transmission of intraosseous ganglions. Since our cases are twin sisters and cysts detected are located on the same ipsilateral bones suggest genetic transmission. Thus, it would be better to investigate cases diagnosed with intraosseous ganglions on the presence of any family member with similar cases.

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