Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2014; 2(6A):1997-1999 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com **DOI:** 10.36347/sjams.2014.v02i06.011

Case Report

Unilateral Os Radiostyloideum Presenting with Degenerative Changes and Wrist Pain in an Elderly Male: A Case Report

Puneet Gupta[1*], Manik Mahajan[2], Rajesh Sharma[1], Poonam sharma[3]
[1]Department of Radio-diagnosis and Imaging, ASCOMS Hospital, Sidhra, Jammu (J&K), India
[2]Department of Radio-diagnosis and imaging, PGIMS, Rohtak
[3]Department of pathology, GMC, Jammu (J&K), India

***Corresponding author**
Puneet gupta
Email: puneetgupta916@gmail.com

Abstract: Accessory carpal bones are rare findings and are mostly discovered as an incidental finding when radiographs are obtained for some other purpose. Herein we report a case of Os radiostyloideum in a 56-year-old male patient, who presented with chronic left wrist pain.
Keywords: Carpal, Wrist, Ossicles.

INTRODUCTION

Accessory bones, or ossicles, are considered to be normal anatomic variants. Accessory ossicles are secondary ossification centres that are distinct from the associated underlying bone. Although generally thought to be congenital in origin, occasionally a posttraumatic or degenerative etiology may be considered if supported by patient history or correlative findings [1].

At least 20 accessory ossicles can involve the wrist [1]. Their correct identification can be facilitated by an awareness of their typical locations in the wrist. Mostly these are asymptomatic and are incidentally discovered on routine radiographs but in occasional cases they may cause considerable pain. Herein we describe the X-ray and computed tomography (CT) findings of os radiostyloideum in an elderly male presenting with chronic left wrist pain. A search in the Medline revealed only two cases of os radiostyloideum so far.

CASE REPORT

A 56 year old male patient presented to the orthopaedician with chief complaints of pain over left wrist. The pain was mild in intensity, dull aching in character and off and on in nature. There was no diurnal variation or radiation of pain. Pain was aggravated on performing active movements of left wrist. No history of recent or remote trauma was given by the patient. On examination, there was mild tenderness in the same region. No sensory or neurological deficit was seen. Patient was advised an X-ray of the left wrist. X-ray revealed a small well defined rounded corticated bone adjacent to lateral aspect of radial head and distal pole of scaphoid, showing normal trabecular pattern (Fig. 1A). A prospective diagnosis of Os Radiostyloideum was made. Patient was advised a non- contrast CT scan of the left wrist for further evaluation. CT scan revealed the presence of a well defined, small, rounded bone with distinct trabecular pattern and peripheral cortex distal and lateral to the radial head without any evidence of sclerosis or cortical breech confirming the diagnosis (Fig. 1B, C, D). Associated subchondral sclerosis of distal end of radius was also present. No such abnormality was seen in right wrist (Fig. 1E, F).

DISCUSSION

Accessory carpal bones are rare findings in radiographs with an incidence of 0.3-1.6% [2]. They are found incidentally in trauma series radiographs and are of no clinical significance in most of the cases [3, 4]. Accessory ossicles are secondary ossification centers that are distinct from the associated underlying bone. At least 20 accessory ossicles can involve the wrist. Common accessory ossicles include the lunula as well as the os styloideum, triangulare, epilunate, trapezium secondarium, and os hamuli proprium [1]. Their correct identification can be facilitated by an awareness of their typical locations in the wrist [5].

Although accessory ossicles are generally considered clinically insignificant anatomic variations, they can become symptomatic and cause wrist pain [6]. The clinician must be aware of these ossicles so as not to misdiagnose them as fractures leading to unnecessary treatment.

Fig. 1: A) X-ray AP view of left wrist showing a small well defined rounded corticated bone (yellow arrow) with normal trabecular pattern adjacent to lateral aspect of radial head and distal pole of scaphoid. B) Coronal, C) Axial and D) Sagittal Reformatted Non Contrast CT images of left wrist showing the presence of a well defined, small, rounded bone with distinct trabecular pattern and peripheral cortex (yellow arrow), distal and lateral to the radial head without any evidence of sclerosis or cortical breech. Associated subchondral sclerosis is seen in distal end of radius (black arrow). E) Coronal and F) Axial Non Contrast CT images of normal appearing right wrist.

Multiple ossicles may be a cause of wrist pain, due to irritation of tendons, ganglion formation, or by mere crowding of the wrist resulting in restriction of carpal movements as in the case of "crowded wrist' reported by Kose et al [1]. Antecedent trauma has been postulated as a cause of this anomaly, resulting in post-traumatic degeneration [7]. Sometimes a separate ossification centre of the radial styloid process can persist and remain unfused in adult life. They do not form part of the wrist joint, and appear as small round bony fragments near the tip of the radial styloid and gives rise to os radiostyloideum [2].

In our case, X-ray revealed a small, oval shaped, well defined rounded corticated bone adjacent to lateral aspect of radial head and distal pole of scaphoid was seen, showing presence of normal trabecular pattern which was later confirmed on non contrast CT scan.

Accessory ossicles in the wrist often create confusion to the clinician, and a diagnosis of skeletal injury is made. They are just incidental findings in the trauma series radiographs and all clinicians should be aware of the common accessory ossicles so as not to confuse them with fractures [2].

So it is hereby concluded that awareness of normal variants and accessory ossicles around the wrist must always be kept in mind so that they are not misreported as fractures and unnecessary treatment could be avoided.

REFERENCES

1. Kohler A, Zimmer E; Borderlands of normal and early pathologic findings in skeletal radiography. Revised by Schmidt H, Freyschmidt J; 4th edition, New York: Thieme Verlag, 1993: 79-93.
2. Suresh S; Os Radiostyloideum- Misdiagnosed as fracture in the emergency room. Orthopaedics, 2010; 1(9): 1-5.
3. Kose N, Ozcelik A, Gunal I; The crowded wrist-a case with accessory carpal bones. Acta Orthop Scand., 1999; 70(1): 96-98.
4. Boya H, Ozcan O, Arac S, Tandogan R; Incomplete scapholunate and trapeziotrapezoid

coalitions with an accessory carpal bone. J Orthop Sci., 2005; 10(1): 99-102.
5. Timins ME; Osseous anatomic variants of the wrist: Findings on MR imaging. AJR Am J Roentgenol., 1999; 173(2): 339-344.
6. Kalantari BN, Seeger LL, Motamedi K, Chow K; Accessory ossicles and sesamoid bones: Spectrum of pathology and imaging evaluation. Appl Radiol., 2007; 36(10): 28-37.
7. Hauch PP; The fate of an accessory ossicle. Br J Radiol., 1946; 19(228): 518-519.