TUBERCULOSIS OF ELBOW
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Abstract:
A case of tuberculosis of elbow in elderly is described. Patient was previously operated for ipsilateral humeral shaft, initially suspected of having implant infection with mysterious presentation. Elbow was operated for drainage and on confirmation of diagnosis with aid of histopathology, antikock’s treatment started and healing progresses smoothly.

Key Word:
Tuberculosis; Elbow infection; Chronic Osteomyelitis

Introduction
Infection at elbow in-patient with previously operated case was supposed to be diagnosed as post-operative delayed infection. The location of swelling also counts which mimics rheumatoid arthritis.

Case Report
75 year old man Sohan Masih presented with history of elbow swelling for six months. Patient has a history of RTA 12 years backing which he suffered fracture shaft humerus R. that was operated and internally fixed with Broad DCP. He was uneventful and he has no complaints regarding the surgery. Till 11½ years patient was symptom less then he developed pain after sustaining trauma (fell over an edge of table) resulting in a small 1x 1cm wound medially, which was later converted into a sinus and pussey discharge, after one month developed another sinus over lateral side, now he presented in our OPD. Patient has h/o weight loss, anoxia and emaciated look with pallor. On examination patient is a wellbuilt old person oriented well belonging to a poor socioeconomic background. Patient has a swelling on right elbow extending from mid to proximal forearm with sinuses on medial and lateral. There was pussey thick discharge yellowish from off and on with discoloration of right elbow skin. Patient also had a post-operative scar of fracture. Movement elbow all present but restricted and painful. Patient was evaluated, with low Hb%, high ESR, pus for c/s. X-Ray shows rigid implant fixation with osteolysis around elbow. A primary impression was made that patient has a chronic osteomyelitis with delayed postoperative implant infection or acute on chronic osteomyelitis. Patient was planned for incision and drainage followed by wound debridement. Sinogram was obtained before surgery shows sinus tract well below the distal end of plate. Surgery done under, methylene blue dye was injected at time of surgery to identify the extent of sinus tract. Posterior midline incision was given over elbow and triceps splited to expose elbow. Copious amount of thick yellowish green pus came out of elbow and on compression of cubital fossa, more pus drained methylene blue tract was traced which was extended to distal two screws of plate, it was decided to remove plate along with extensive wound debridement. Tissue sent for histopathology and pus for c/s. Broad-spectrum antibiotics was started. Results of investigation showed granulomatous inflamatinn coincident with tuberculosis. So antituberculosis treatment started and after three days patient was discharged because of adequate recovery.

Discussion
The patient presented with bizarre look confusing between postoperative delayed implant infection, acute on chronic osteomyelitis, acute septic arthritis and olecranon bursitis secondary to rheumatoid arthritis.

In our patient there was a complete asymptomatic phase of 12 years after surgery. There was no frank loosening of implant or extension of sinus tract to implant. Our patient is an old patient with poor socioeconomic background, supported by high ESR. There is no S/S regarding rheumatoid arthritis, also swelling extended far more proximally than olecranon bursitis. Sinuses are typical of chronic granulomatous infection.

However early diagnosis is the corner stone of tuberculosis control strategy. Recent years have seen major advances in the field of biotechnology and molecular biology with introduction of several new techniques but they are too expensive and sophisticated to be of any practical benefit for patient living in developing countries like Pakistan.¹⁰

In the literature people have reported cases with elbow tuberculosis presented with variable presentations,³,⁷,¹²,¹⁴, either as chronic infection depicting chronic osteomyelitis
or septic arthritis. Holder et al. presented a case presenting
with elbow swelling, simulating chronic bursitis of rheumatoid
arthritis. Others also presented cases mimicking rheumatoid
arthritis. Bryan et al. presented cases diagnosed as case of
rheumatoid arthritis subsequently developing polyarthritis
affecting elbow with deterioration of joint space.

Wilkinson et al. describe two cases of Poncet's disease in
which polyarthritis occurs in tuberculosis infection in which
elbow is the primary site. Sometimes elbow tuberculosis
presents as a forearm mass, abscess of brachialis and biceps
brachii muscle without osseous involvement.

As tuberculosis is very common in this part of the world and
clinicians are accustomed with various dodgy presentations
of tuberculosis. So, it is a relatively easy task in our country
to make provisional diagnosis of tuberculosis and supporting
clinical examination aiding history of weight loss, evening
pyrexia, typical sinus discharge makes life easier for clinician
to depict tuberculosis. After drainage and extensive wound
debridement patient usually put on antituberculosis drugs and
left for a while because any metal will eventually cause more
hazard if we try to stabilize elbow by arthrodesing it. Also in tuberculosis fibrous ankylosis itself will stabilize
elbow. Martini et al. also presented a series of patients treated
with conservative treatment, inferring satisfactory results
compared to arthrodeses or excision.
Conclusion

From our experience we conclude that when patient presents with chronic swelling of elbow, detailed history can help in evaluating for tuberculosis and differentiating from rheumatoid and other bone and joint diseases. Conservative treatment usually tried to consolidate and achieve fibrous ankylosis.


