

## ISOLATED COMMINUTED TRAPEZIUM FRACTURE

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**Introduction:** Isolated trapezium fracture are very rare accounting about 3% of hand injuries. This fractures can lead to permanent impairment of the thumb and trapeziometacarpal joint in pinch and grip.

**Discussion:** A 30 years old gentleman, no known medical illness came to clinic with complain of right thumb pain and limited range of motion. Patient had 1 week history of motor-vehicle accident by falling on hyperextended wrist. Patient had swelling of the thumb and wrist joint. Clinical examination noted patient unable to abduct the thumb. X-ray of the right hand showed comminuted fracture of the trapezium. Open reduction and kirschner-wire fixation was done under elective surgery. The trapezium was a Type V fracture of Walker's classification. Post operatively thumb was protected with plaster splint. Pins were removed after 6 weeks and physiotherapy initiated. After 9 weeks, patient able to abduct and opposition right thumb with little residual pain. In the 12th week, patient able to pinch and make a full fist, similar as the contralateral limb.

**Conclusion:** Nearly 50% of the trapezial fractures were a consequence of motorbike accidents where the hand goes into hyperextension and radial deviation causing the trapezium to compress between the base of first metacarpal and radial styloid. Clinical presentations may vary depending on the displacement and fracture type. Universal protocol treatment of this injury is lacking and commonly accepted that intraarticular fractures require accurate reduction and restoration of the articular surface. Regarding displaced intraarticular fractures, as in this case, most of the literature recommends open reduction and fixation. The technique applied ensured stable and anatomic restoration of the articular joint surface. Post-surgical plaster immobilization was discarded, to start early rehabilitation. Trapezial fractures are challenging injuries to diagnose and often be missed. Anatomic reduction recommended to achieve a good functional outcome as any articular incongruity leads to post-traumatic arthritis.