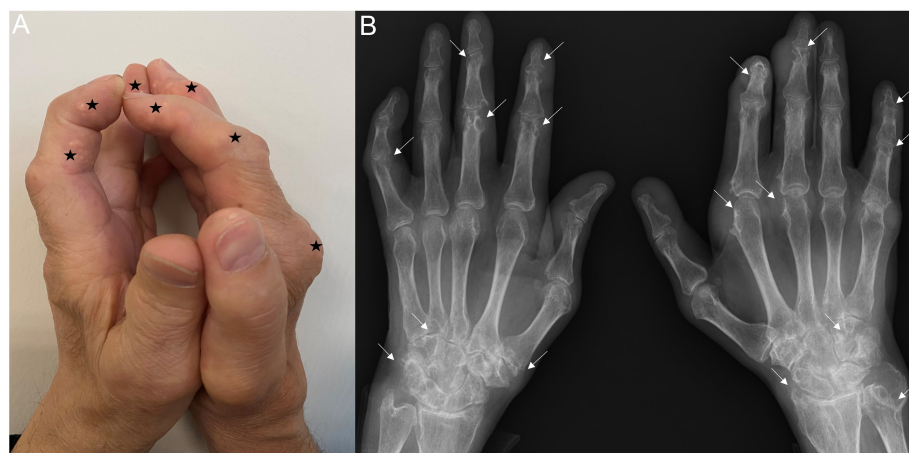


## Positive Prayer Sign in Tophaceous Gout

Sadettin Uslu 

A 61-year-old man presented with complaints of stiffness, decreased grip strength, and difficulty in fine movements of the hands. The so-called “positive prayer sign,” also known as the inability to extend or flex the fingers or approach the palmar surfaces of the phalangeal joints, was revealed during a physical examination. Furthermore, tenderness, swelling, and nodule with deposits of solids were observed (Figure 1A). Skin tightness, sclerosis, and edema were not observed in the fingers and palms. Radiograph showed sharply marginated articular and periarticular erosions (Figure 1B). The blood test showed elevated uric acid and acute phase reactants. Polarized light microscopy revealed typical monosodium urate monohydrate crystals in the synovial fluid aspirated from the wrist. Allopurinol and colchicine treatments were started, and there was a slight improvement in finger movements.



**Figure 1.** (A) Positive prayer sign and extensive tophaceous deposits (asterisk) (B) Radiograph showing erosive changes (arrow).

Tophaceous gout may affect joint function in several ways: through joint damage, associated synovitis, and/or mechanical interference with joint movement. Mechanical obstruction to joint motion due to tophaceous deposition can subsequently lead to reduced grip strength, loss of dexterity, and poor hand manipulation.<sup>1</sup> Other diseases that infiltrate the hand (diabetes, eosinophilic fasciitis, and scleroderma) can cause restricted finger movement, which manifests itself as a positive prayer sign.<sup>2,3</sup> The prayer sign test can be easily performed to detect the extent of hand damage in daily practice.

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### Main Points

- Tophaceous joint disease is the strongest predictor of hand function in gout.
- Joint findings are highly variable and significantly affect the quality of life of gout patients.
- The prayer sign test can be easily performed in clinical settings with a rapid bedside assessment method of hand findings in gout patients.