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**ANSWER: POPEYE SIGN OF RUPTURE OF LONG HEAD OF BICEPS.**

The incidence of biceps tendon rupture is <1 /100,000 and is more common in men.<sup>1</sup> It usually occurs with sudden eccentric loading of the biceps with arm in flexion and supination.<sup>2</sup> The risk factors include old age, preexisting shoulder condition, strenuous overhead activities or overuse and use of steroid and statins.<sup>2,3</sup> The long head of biceps is involved in 95% of the cases while distal rupture is seen in 5%.<sup>3</sup>

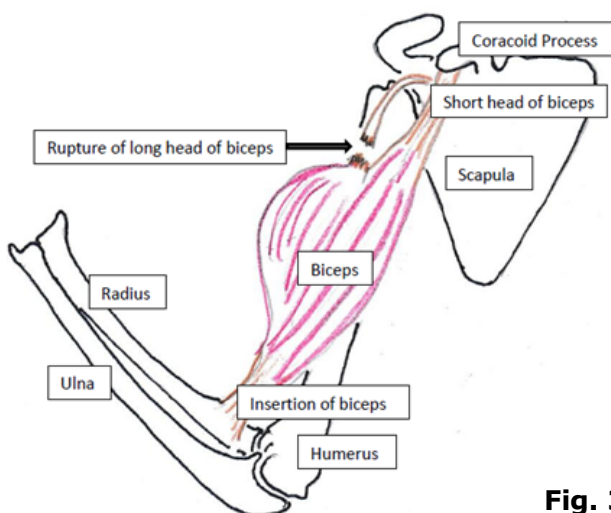
The initial presentation is with pain and swelling while in the chronic case it is painless with some tenderness in the bicipital groove. Usually there is no loss of function as the short head of biceps is intact.<sup>2,3</sup>

On clinical examination there is distal displacement of the biceps belly on contrac-

tion resulting in a swelling similar to contracted biceps seen in the pictures of the popular cartoon character Popeye. Hence the name 'Popeye sign' (Figure 3).<sup>2,3</sup>

Imaging studies like ultrasound and MRI may be needed to confirm the diagnosis and determine the extent and location of the tear.<sup>3</sup>

The treatment of proximal rupture of biceps is usually conservative with rest and analgesics. Surgery may be indicated for cosmetic reasons and in high demand patients like athletes.<sup>3</sup>



**Fig. 3**

**REFERENCES**

- 1: Clayton RA, Court-Brown CM: The epidemiology of musculoskeletal tendinous and ligamentous injuries. *Injury* 2008;39:1338-44.
- 2: Pineda C, Rodriguez LC, Mendoza J, Sandoval H, Gutierrez J: Popeye’s sign. *Clinical Rheumatology* 2019:1-2. Accessed on 20 July 2019 from <http://doi.org/10.1007/s10067-019-04652-9>.
- 3: Hsu D, Chan K. Biceps Tendon Rupture. Accessed on 20 July 2019 from <https://www.ncbi.nlm.nih.gov/books/NBK513235/>