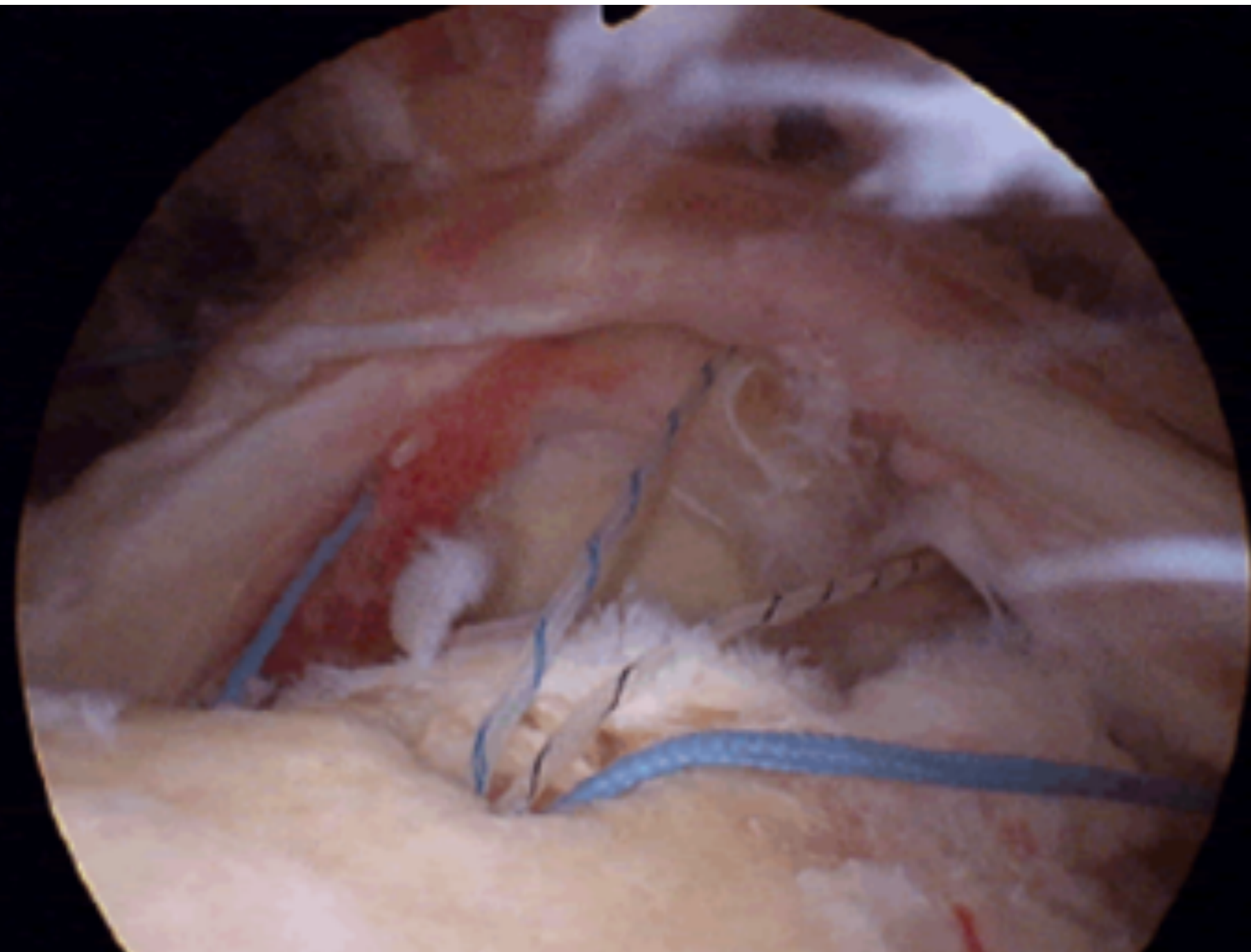
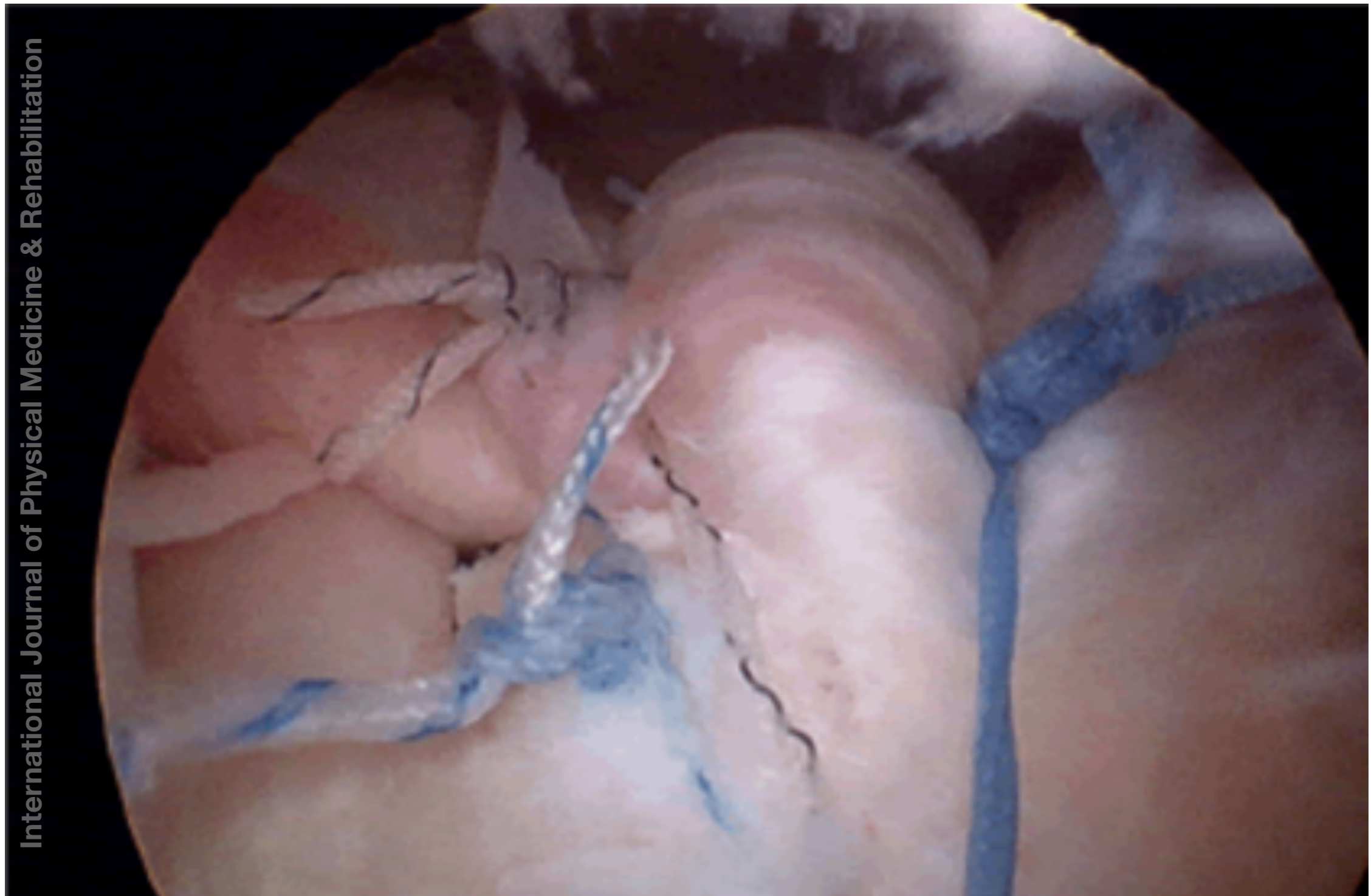


**So called "massive" rotator cuff tears,
and any rotator cuff tendons that are
fully torn off, disconnected,
retracted (pulled back up into the shoulder),
have long been challenging to repair surgically.**

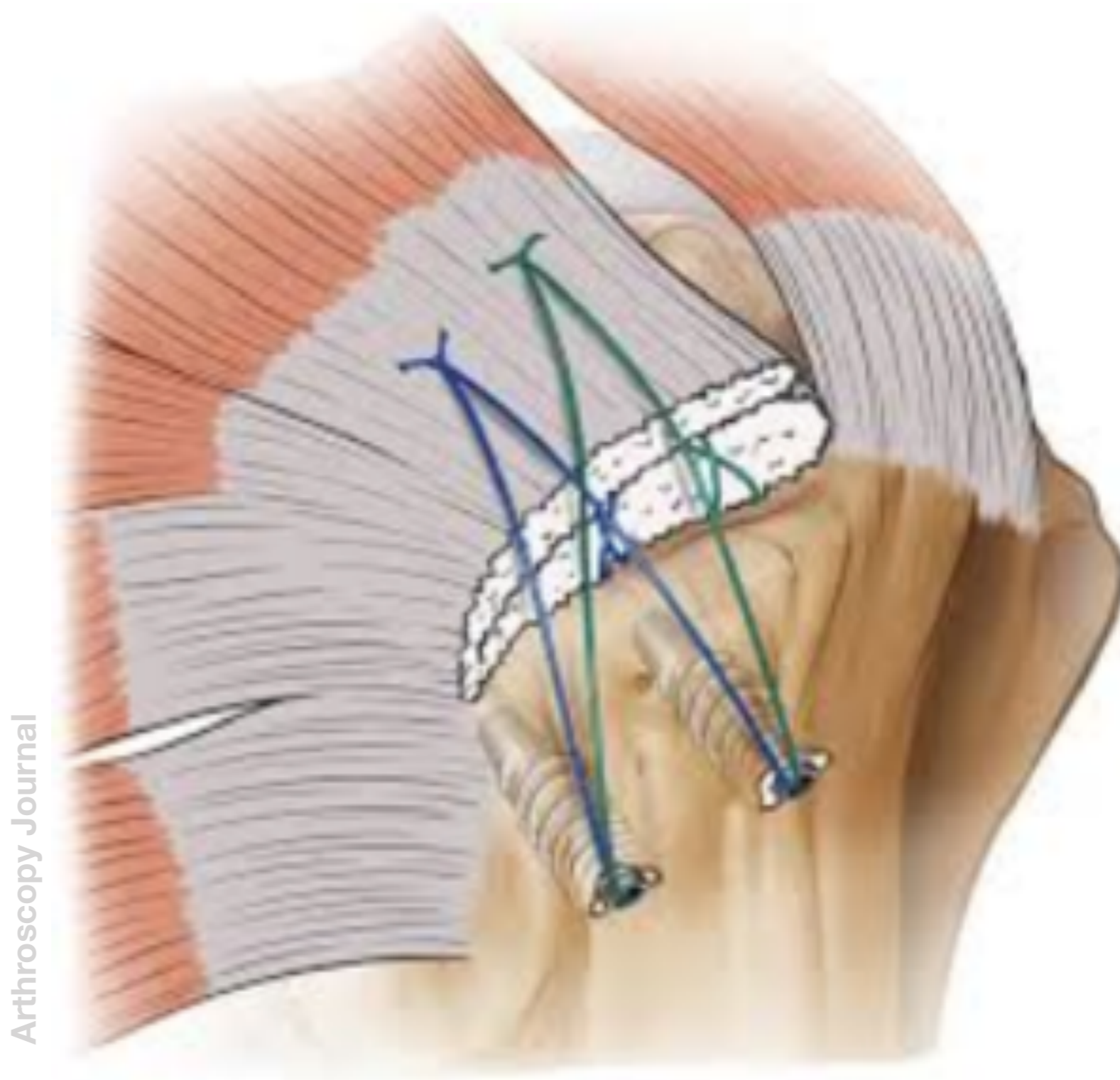
Surgical repair has mostly depended on strings (sutures) to bridge the gap between the bone and the retracted, pulled back tendon.



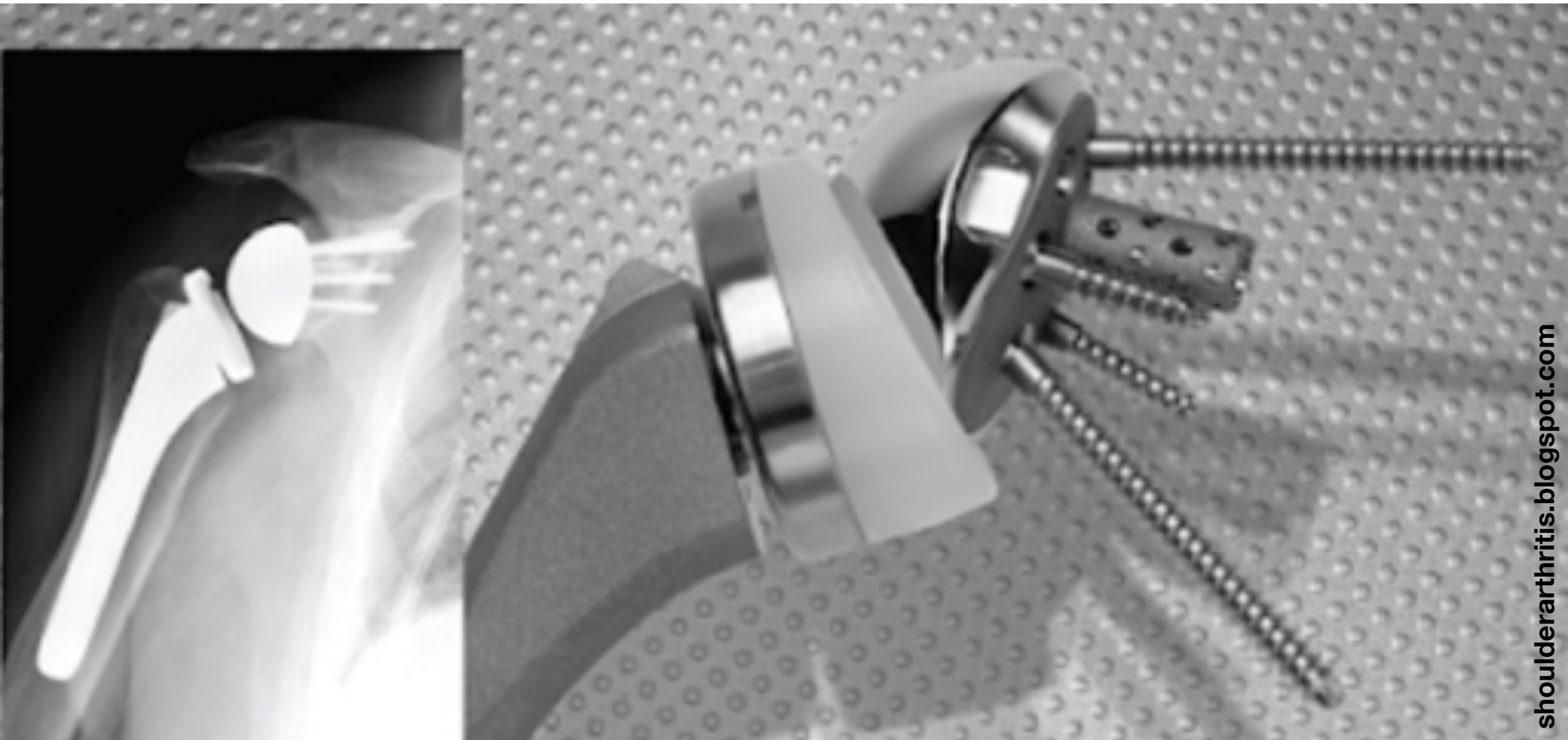
However, strings can wear and break, or they can come loose from where they are attached to the pulled back tendon.



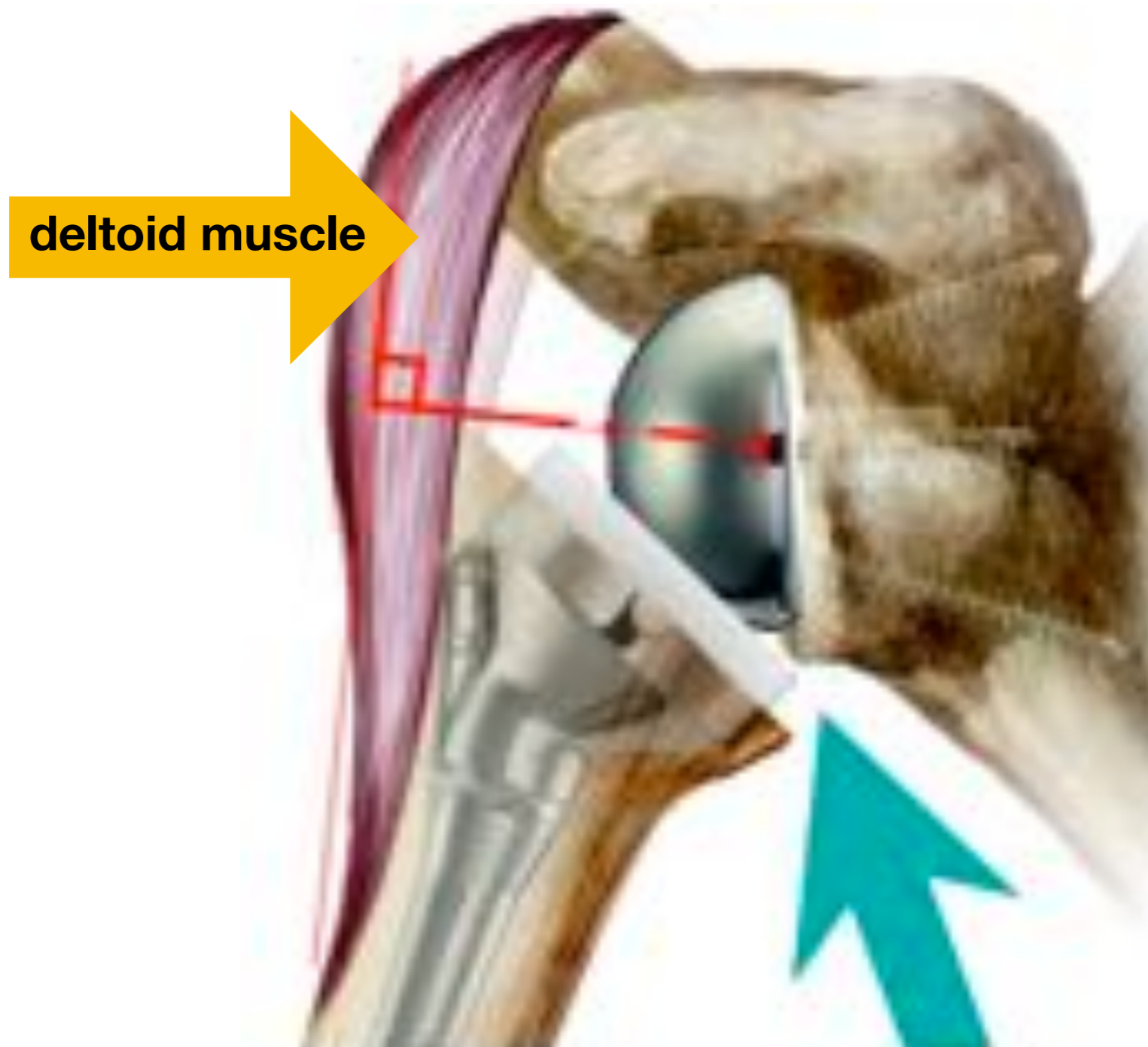
The vulnerability of the strings, and attachment of the strings to the degenerated tendons, make surgical repair questionable.



One current surgical option offered to some patients is reverse shoulder replacement in which the ball and cup are reversed.



This more radical shoulder replacement gets rid of the rotator cuff and depends on just the surface deltoid muscle to move, position, stabilize the shoulder.



Dislocations of the joint are much more common with the reverse shoulder replacement.



Dislocations happen in part because of wear of the polyethylene cup. "Particles of polyethylene wear are known to cause inflammation, pain, stiffness and loosening."

**-- Frederic A. Matsen III, M.D.,
shoulderarthritisblogspot.com**



The reported rate of complications of reverse shoulder arthroplasty (RSA) seems to be higher than the complication rate of anatomical total shoulder arthroplasty.

The most common complications of RSA include instability, infection, notching, loosening, nerve injury, acromial and scapular spine fractures, intra-operative fractures and component disengagement.

-- Barco R, Savvidou OD, Sperling JW, Sanchez- Sotelo J, Cofield RH. Complications in reverse shoulder arthroplasty. 2016;1:72-80. DOI: 10.1302/2058-5241.1.160003

The most common causes of revision surgery after reverse total shoulder arthroplasty (RTSA) are, in decreasing order: prosthetic instability (38%), infection (22%), humeral problems (21%) including loosening, unscrewing and fracture, and, lastly, problems of glenoid loosening (13%). Complications leading to reoperation are often multiple and their association is underestimated. It is not uncommon for patients to be reoperated several times due to the persistence of the same complication, failure to diagnose associated complications, or onset of an additional complication.

-- Boileau P. Complications and revision of reverse total shoulder arthroplasty. *Orthopedics & Traumatology: Surgery & Research*. Volume 102, Issue 1, Supplement, February 2016, Pages S33-S43.

All complications, which require removal of the implant, however, leave the patient with very poor function. Therefore, prevention of all the complications likely to lead to removal of the implant should be studied in detail.

-- Farshad M, Gerber C. Reverse total shoulder arthroplasty--from the most to the least common complication. International Orthopedics (SICOT)(2010) 34:1075-1082; DOI 10.1007/s00264-010-1125-2

While the previous slides showed studies that concluded reverse shoulder replacement has worse outcomes than regular shoulder replacement, this study of 58,054 regular shoulder replacements also questioned the safety of that more common procedure:

Conclusions *Younger patients, particularly men, need to be aware of a higher likelihood of early failure of shoulder replacement and the need for further and more complex revision replacement surgery. All patients should be counselled about the risks of serious adverse events. These risks are higher than previously considered, and for some could outweigh any potential benefits. Our findings caution against unchecked expansion of shoulder replacement surgery in both younger and older patients.*

-- Craig RS, Lane, JEC, Furniss D, Rees JL. Serious adverse events and lifetime risk of reoperation after elective shoulder replacement: population based cohort study using hospital episode statistics for England. BMJ 2019;364:l298