

Arthro-endoscopic, medial meniscal cyst excision & meniscal repair

Dr.Suresh Perumal, Dr.Prakash Ayyadurai, Dr.Parthiban J,
Prof.Arumugam S



Sri Ramachandra Institute of
Higher Education & Research



Centre for Sports Science
Crafting Sports Through Science

Disclaimer

No conflict of interest



Sri Ramachandra Institute of
Higher Education & Research



CSS

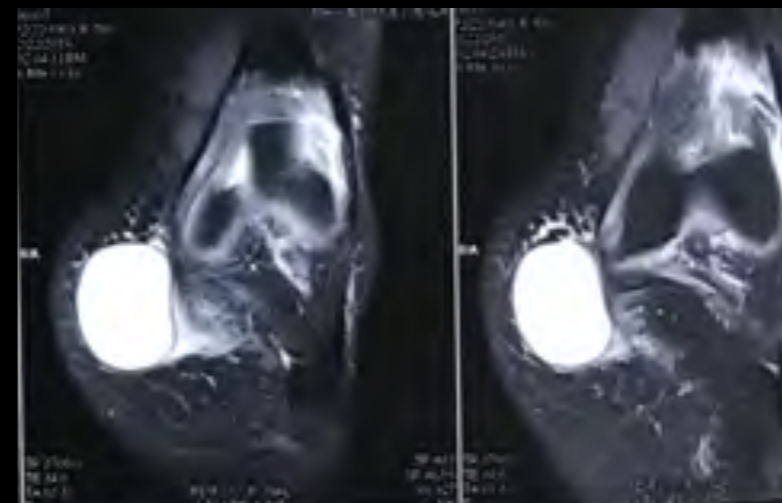
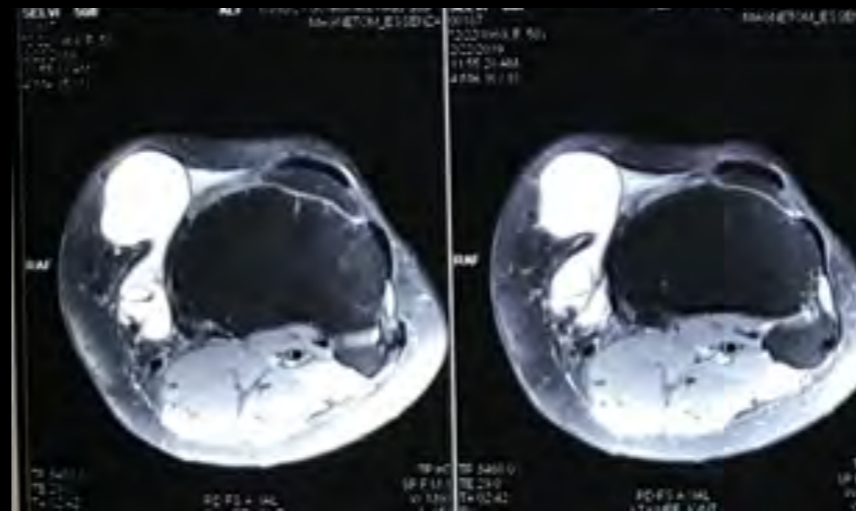
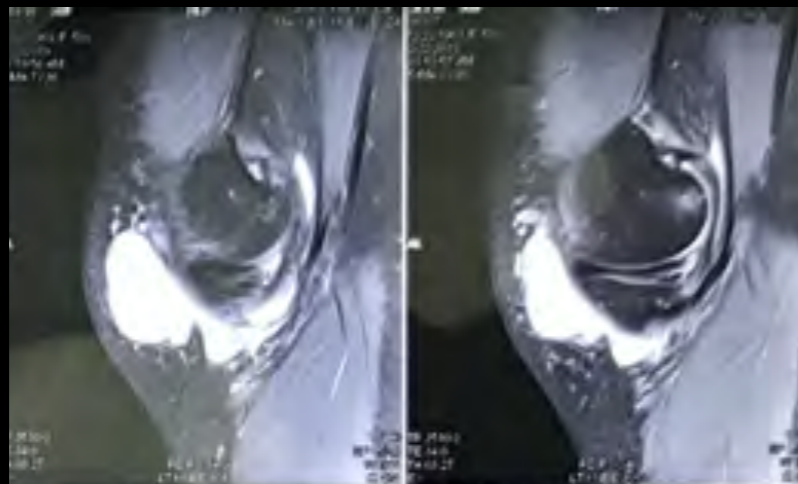
Centre for Sports Science
Crafting Sports Through Science

Case History

- 50 yr old female, daily wage labourer
- pain and swelling in her left knee - 1 year
- Severe pain and activity of daily living restricted
- Alleged history of skid in the farm yard a year ago



MRI



Large cystic swelling arising from the posteromedial aspect of the medial meniscus with extra-articular extra-capsular communication extending upto to the antero-medial aspect of the knee.



What do you need?

Real patience & some specific instruments

Instruments used:

- Standard 4mm arthroscope. Shaver
- Wissinger rod
- Radio frequency
- Metal Cannula
- All inside meniscal repair device



Expertise level: Advanced



Sri Ramachandra Institute of
Higher Education & Research



CSS

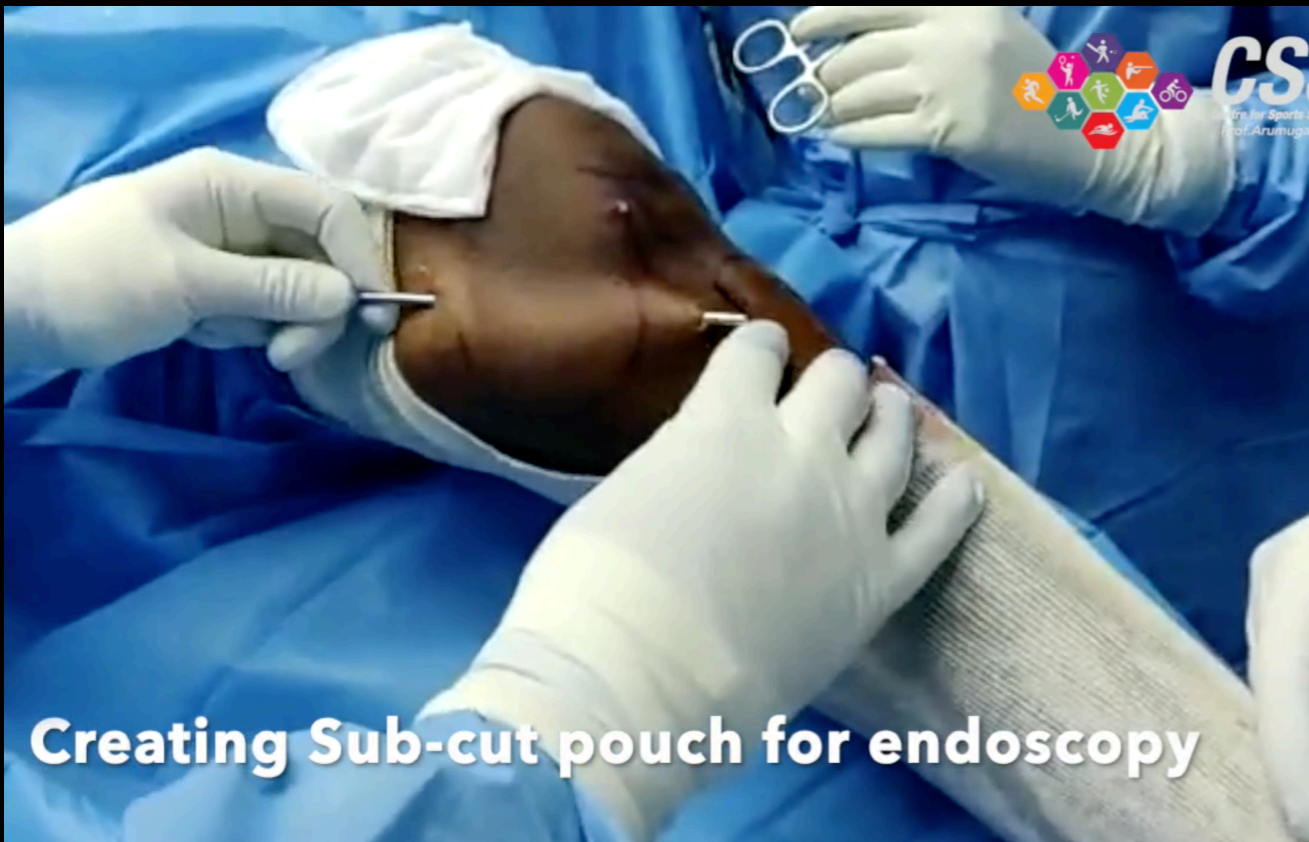
Centre for Sports Science
Crafting Sports Through Science



Med meniscus tear on probing



Identifying posterior cyst communication



Creating Sub-cut pouch for endoscopy

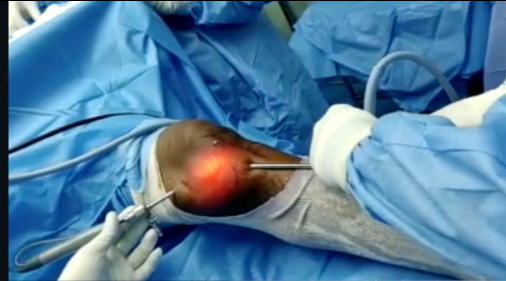


Inspecting cyst wall

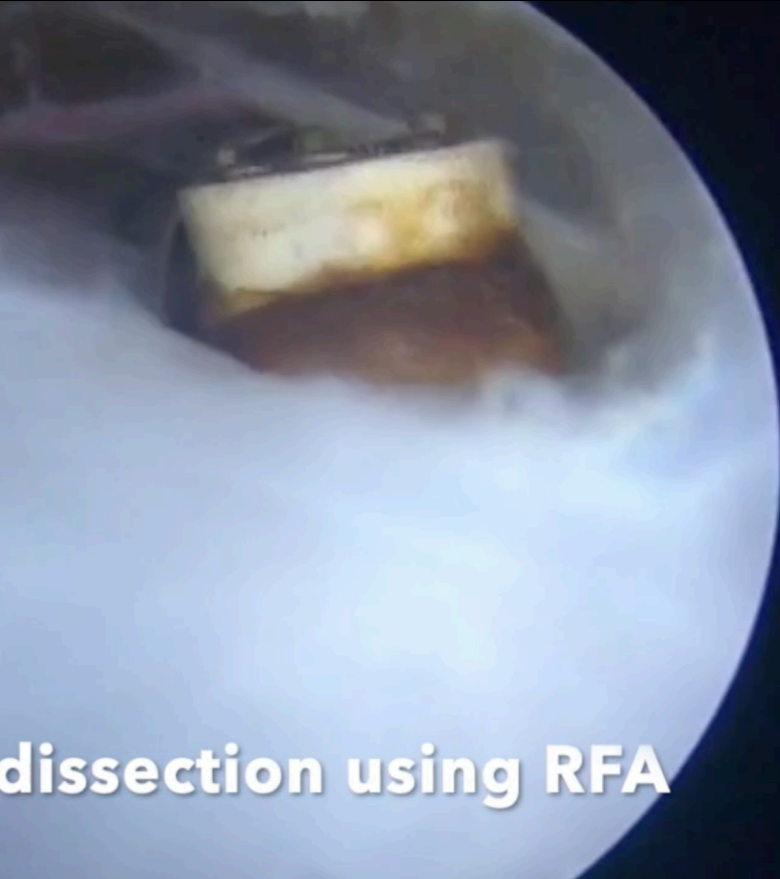




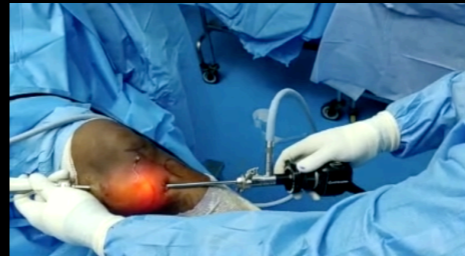
Cyst seperated in toto from the Pes



Soft tissue dissection using RFA



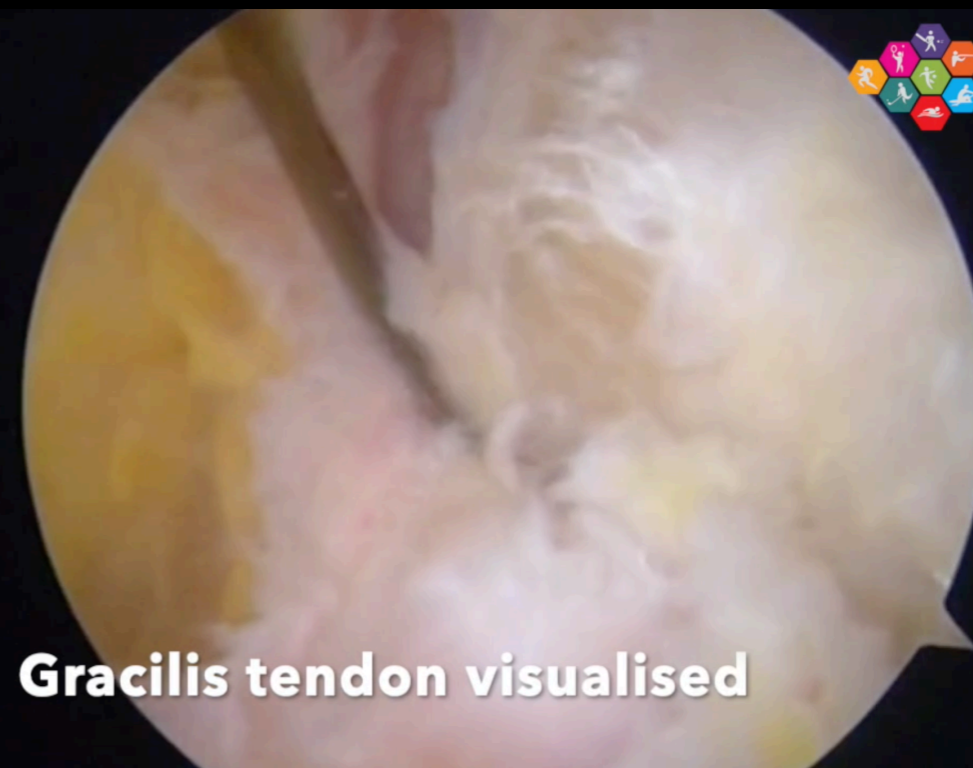
Communication found



Seperated & isolated cyst



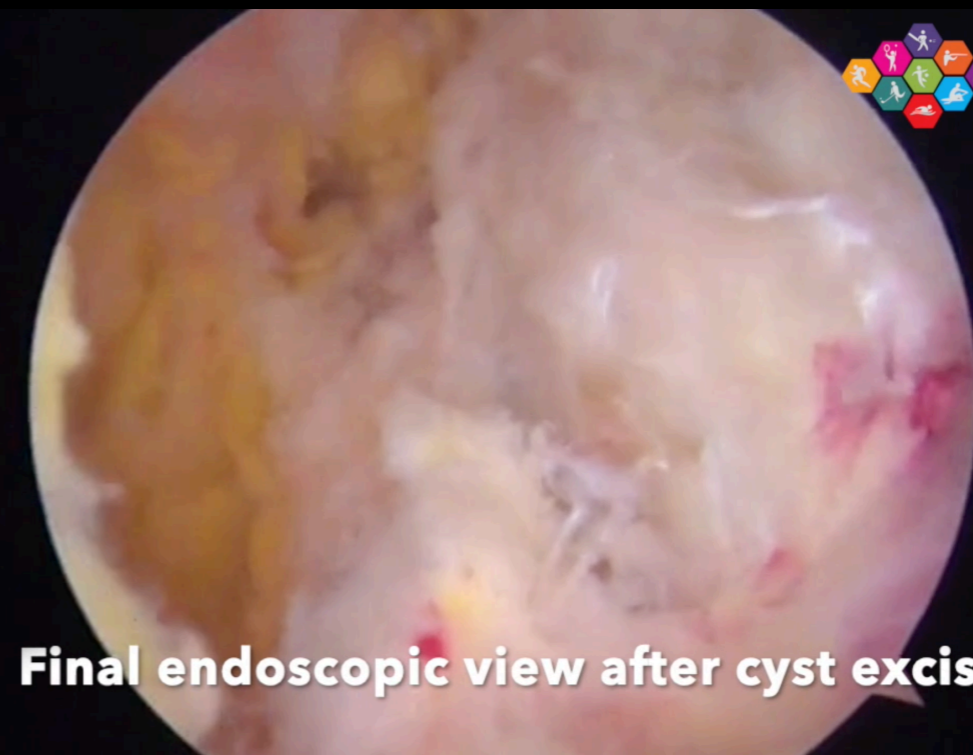
Cyst wall punctured & excised



Gracilis tendon visualised



All inside poserior horn repair



Final endoscopic view after cyst excision



After cyst excision



Follow up image



Why is this unique?

All endoscopic cyst removal & cyst tract excision

- Complete minimal access arthro-endoscopic resection of medial meniscal cyst
- **Problems addressed:** Meniscal tear, Intra articular cyst, extra-articular cyst, excision of communication channel.

Why is this unique?

All endoscopic cyst removal & cyst tract excision

Standard AL, AM portal and PM portals for diagnostic arthroscopy

Antero-inferior para cyst portal & Mod PM portal used for separation of subcutaneous tissue overlying the cyst & for endoscopy.

Cyst wall dissected all around using RF. Isolated cyst is then punctured and then resected using a shaver.

The communications channel is also excised to prevent recurrence and the meniscus tear is repaired using all inside implants.

Conclusion

Arthro-endoscopic meniscal cyst excision is an excellent choice as it serves the purpose.

Needs expertise & patience

Endoscopy work in extension

Removal of cyst tract & meniscal repair prevents recurrence



Reference

1. How to Perform a Giant Parameniscal Cyst Exeresis: Step by Step Technique, José Leonardo Rocha de Faria, M.D. , Douglas Mello Pavão, M.D., M.Sc.
Marcos de Castro Moreirão, M.D., Rodrigo Pires e Albuquerque, M.D., M.Sc. , Ph.D.
Eduardo Branco de Sousa, M.D., M.Sc., Ph.D.
Alan de Paula Mozella, M.D., M.Sc., <https://doi.org/10.1016/j.eats.2020.01.021>
2. Campbell S.E.Sanders T.G.Morrison W.B., MR imaging of meniscal cysts: incidence, location, and clinical significance., Am J Roentgenol. 2001; **177**: 409-413
3. Kose O.Erol B.Ozyurek S.Ege T., A giant medial parameniscal cyst of the knee joint., BMJ Case Rep. 2013; **2013**
4. Ohishi T.Suzuki D.Matsuyama Y., Arthroscopic decompression for a giant meniscal cyst., Orthopedics. 2016; **39**: e166-e168

