

TendoAchilles rupture

Discussion initiated by – Mangal parihar on 23/08/2011- mangalparihar@gmail.com

dear all (and especially the foot and ankle army led by selene)

this 35 year old lady, obese (100 kg on a frame of ~ 5ft 2in), with early menopause. No DM / HT.

presented with severe pain on the left side since 7 days, unable to walk due to the pain. she had mild occasional pain, during the prior 3 months, but was doing all her normal activities.
at present she complains of mild to moderate pain on the right side too.

clinically the left Tendo Achilles is torn completely. on the right side, she has tenderness at and proximal to the insertional area of the tendon.

the MRI shows a complete rupture on the right, and partial on the left side.

Questions - what would be your approach to this patient (with reasons if possible, so that i can learn some decision making in this case)

1. is this kind of presentation common? both sides ruptured.

1a. what position and incision

2. she will obviously need a reconstruction, but by what

- a. FHL
- b. Peroneus Brevis
- c. Turn Down of the TA

3. Postop immobilisation in what position

4. Postop immobilisation for how long

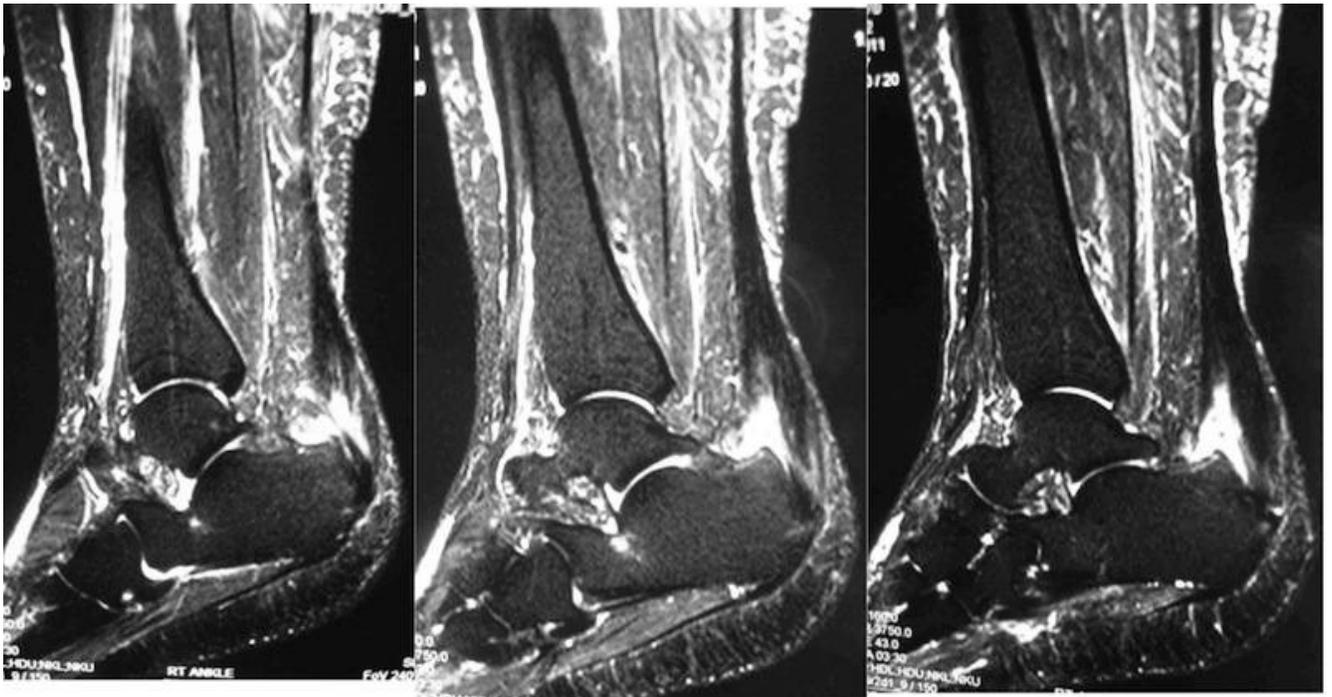
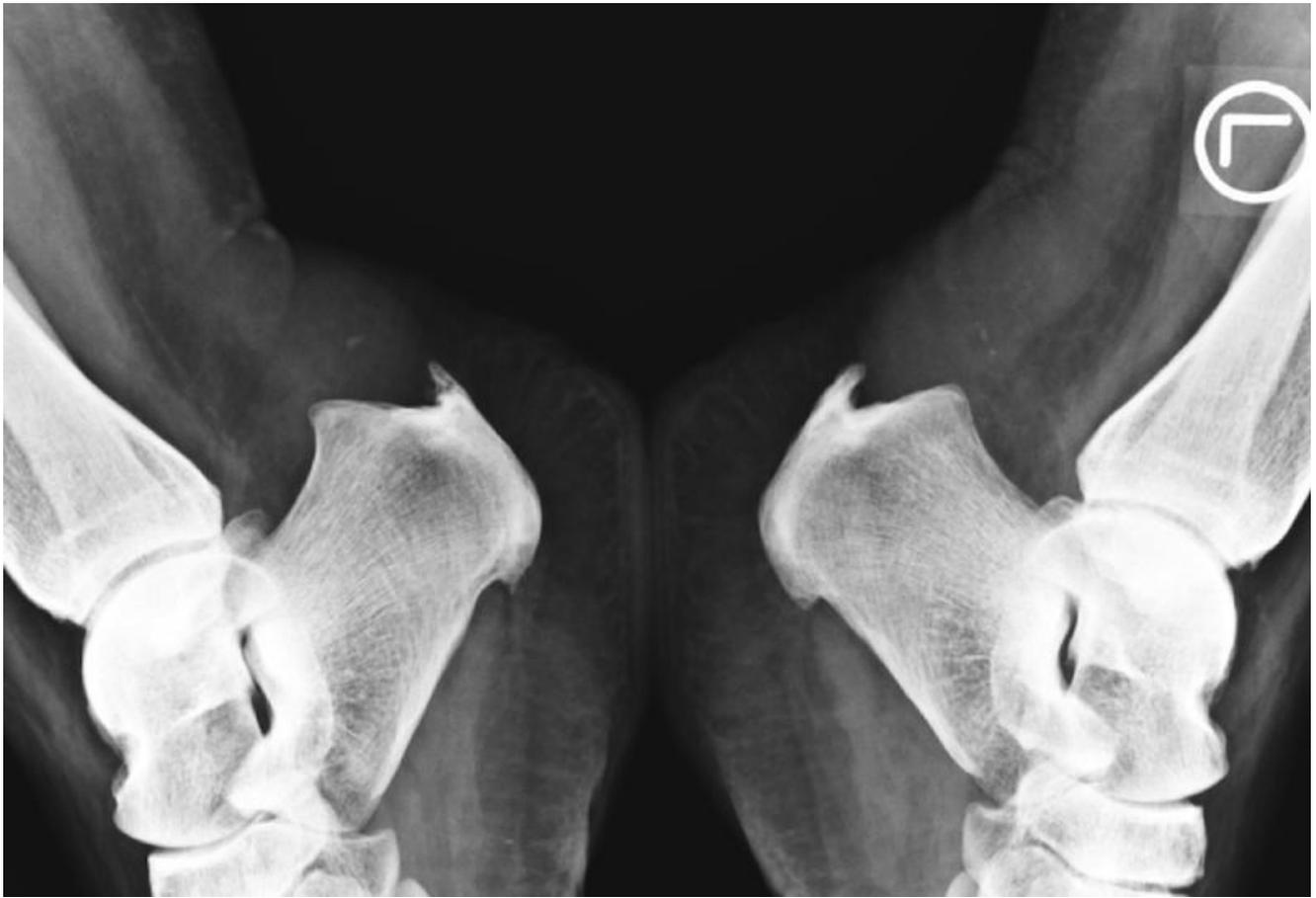
My plan (from a position of relative ignorance) is

Prone position
lateral incision
excision of the prominent of the calcaneus
Peroneus brevis for reconstruction
Immobilisation in mild equinus for 6 weeks

regards

Mangal Parihar

<http://www.ilizarov.in>



Right Side Partial Rupture
Left Side Complete Rupture

Dr Mangal,

I must have seen at least 4 cases (that I remember) in my career.

I have always done turn down flap in all the cases. No bony surgery.(excision of bony prominence of calcaneus)

Prone position, Lateral incision

Immobilisation by AK cast in mild equinus

Regards

V M Iyer

Dr Vishwanath M Iyer

919742399481

917620853362

103, Railway lines, Solapur.413001

91 217 2317597/2316783

is she a rheumatoid patient?

most common cause is chronic tendonitis/chronic trivial injury to the tendo-achilles

--

Dr kamal a p

Consultant Arthroscopic & Trauma surgeon

Marian Medical Centre

Arunapuram, Pala

Kottayam DIST

Kerala

Dear Mangal,

Has she received Steroid injections in the past. I have had the occasion to treat two such cases in the past and both had received local steroids. Both had degeneration of the fibres and i could manage to repair without any tendon supplement. One of them is a Karate Instructor who went back to his occupation without any problems.

Dr Deep Bhandare.

Goa.

Not rheumatoid and not received steroid injection.

Dr Mangal Parihar

Dear Mangal,

Pls give more info regd injury. How did she get this tear?. Ur mails points towards her weight only!!!!. Is it stress tear/path tear? What is your guess for the same? This can help to plan a line of treatment

Regards,

Skand Kumar

Dear Mangal,

In ochronosis, bilateral spontaneous ruptures of TA have been reported.[Rajsekaran in 2006 JBJS]
Prakash Amin
Ahmedabad

Dear Mangal, while postulating various causes..

does any body has a personal series done

with histology study. I never ever thought of

sending the TA tissue for HP...any comment..?.

Dr.ASHOK PAGRUT

BA, MB,

D.Ortho.BOM, M.S.Ortho.BOM..

ORTHOPAEDIC AND HAND SURGEON

DR.PAGRUT ORTHOPAEDIC HOSPITAL

Sahdev,Vishal Nagar

MiTh Chouki,Marve Road.

MALAD--W.

MUMBAI. 400 064

Mangal,

I am in the OR all day. Will send a response later tonight (my time).

sgp

Selene G. Parekh, MD, MBA

Associate Professor

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Duke University

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http://www.ncorthoclinic.com/physicians_selene_parekh.php

<http://footdronline.com/>

She had no injury to speak of.

My guess for the same is a degenerative tear.

I mentioned her weight only because that may play a role in treatment. (I would be wary of casting such a large patient)

Mangal

Thanks,

Meanwhile, awaiting opinions from

Rohit?
Malhar?
Mangal

Pl give Above knee cast for 3 weeks in full plantar flexion.
- Kanabar

Mangal

In this obese female would you like to go for conservative treatment.

See attached articles, which I can send to you if required.

SS Suresh

Ibri Regional Referral Hospital
Sultanate of Oman

Conservative Management of Bilateral Tendoachilles (TA) Rupture—A Case Report

Rahul Kakkar, Simon Chambers, Malcolm M. Scott
North Tyneside General Hospital, Rake lane, North Shields, NE29 8NH

Surgical Science, 2011, 2, 224-227

Our case presents a unique opportunity to examine conservative treatment methods in a healthy patient. Although different management was used (above knee versus below knee casts) for each side, the outcomes on both sides were similar and in this case it did not make a difference whether an above knee or a below knee cast was used for the initial treatment as the tendons healed on both the sides and the patient returned to their pre-injury activity levels. This also demonstrates that the amount of knee extension/flexion has no bearing on the tendoachilles healing and that the only factor affecting the separation of tendoachilles ends and thus their healing is the plantarflexion of the ankle.

This case is only the second reported case of bilateral rupture in a healthy patient and our case demonstrates that bilateral tendoachilles rupture can be treated conservatively with a good outcome.

Operative *versus* non-operative treatment of acute rupture of tendo Achillis

J. F. Keating,
E. M. Will

J Bone Joint Surg [Br]
2011;93-B:1071-8.

Based on our findings and those in the published literature to date, we do not recommend routine operative management of acute tendo Achillis rupture. We were unable to demonstrate any functional benefit associated with operative treatment. The main benefits associated with surgical treatment are a reduction in the duration of cast immobilisation and a lower risk of re-rupture. Non-operative treatment remains a valid alternative to surgery, and avoids the complications of operative treatment.

There have been several reports of bilateral TA ruptures after ciprofloxacin therapy . Did she have any?
[Rajesh rajesh84@asianetindia.com](mailto:rajesh84@asianetindia.com)

Mangal,

Sorry for the delay in responding. Busy day in OR/OT. In fact I had a similar case to your today in surgery, expect my patient was 200kg!

So, let me share with you my thoughts:

1. This patient has Achilles enthesophytes and a Haglund's bilaterally
2. On the left, you have an insertional tear
3. On the right you have a partial insertional tear with tendinopathy
4. From the imaging, I have a feeling this is a chronic issue with an acute episode on the left

From a treatment perspective you really have two options:

1. Nonoperative - this is very popular in Europe but is used more for traditional Achilles tears vs. insertional tears. The down side to nonoperative care is: prolonged immobilization, loss of power of plantarflexion, a higher rerupture rate (up to 20% in some papers). You can try early mobilization techniques as is practiced in Europe, but again the data on this is related to mid-substance tears, not insertional. I have my doubt on the success of this with an insertional rupture.

2. Operative techniques - this is popular in the US. The algorithm for this would be:

- A. Resect the Haglund's and enthesophyte
- B. Debride the Achilles stump of tendinopathic tissue. If more than 50% of the tendon remains and is healthy, try to get a primary repair with attachment to the calcaneus using anchors. You may need to do a V-Y lengthening procedure or turn down to get this to attach. Have a low threshold for a tendon transfer. You can use FHL, FDL, peroneus brevis. However, the FHL is most phasic with the Achilles, is stronger than the FDL, and has low comorbidity and loss of strength as opposed to the peroneus brevis.
- C. If you debride the Achilles stump and less than 50% of good tendon remains, then do a tendon transfer.

3. My bias for this case:

- A. supine position
- B. postero-medial approach
- C. resect Haglund's and enthesophyte
- D. FHL transfer with Achilles repair to the calcaneal insertion
- E. She is obese, so consider DVT prophylaxis
- F. Non weight bearing in a short leg cast for 6 weeks

For the FHL transfer, here is the technique:

An incision is made over the medial side of the foot. It is carried down through the subcutaneous tissues to the level of the abductor fascia. The abductor hallucis muscle is reflected inferiorly. The origin of the flexor hallucis brevis muscle is identified and it is released to gain access into the midfoot. The flexor digitorum longus and flexor hallucis longus tendons are then identified. The interconnection between these two tendons is released. The flexor hallucis longus tendon is then transected at the level of the midshaft of the first metatarsal just proximal to its division. A tag suture is placed in the proximal stump of the flexor hallucis longus. The distal aspect is sewn into the flexor digitorum longus tendon to maintain great toe flexion.

A longitudinal incision is made posteromedially just anterior to the Achilles tendon. Dissection is carried down full thickness to the paratenon. The paratenon is opened and the Achilles tendon is inspected. The tendon is debrided sharply of all necrotic tissue. The deep posterior fascia of the leg is identified over the muscle of the flexor hallucis longus muscle. A longitudinal fasciotomy is created and the flexor hallucis longus is retracted into the posterior incision.

Two drill holes are then created in the posterior body of the calcaneus. One superiorly just anterior to the Achilles insertion approximately 2.5 cm in depth. A second drill hole is made from the medial side to intersect the first drill hole. These are then converted to a tunnel with the use of a towel clip. Using a suture passer the tag suture and Achilles tendon are passed from the superior hole out the medial hole and with the foot in 20 degrees of plantar flexion the tendon is sewn back onto itself. Then using a tendon weaver the FHL tendon is woven through the Achilles tendon and the tendon is repaired and the FHL secured with multiple nonabsorbable sutures keeping the knots on the anterior surface of the Achilles tendon.

The wounds are irrigated and the paratenon and subcutaneous tissues closed with absorbable suture. The skin is closed with staples. The foot is placed in a bulky compression dressing with plaster splints in 15 degrees of plantar flexion

Hope this helps.

SGP

Selene G. Parekh, MD, MBA
Associate Professor
Department of Orthopaedic Surgery
Adjunct Faculty
Fuqua Business School
Duke University
selene.parekh@gmail.com

Selene

Excellent description for management

Dr. Nishith Shah
Arthroscopy- Sports Medicine

Aash Arthroscopy centre
Opp. Jalaram temple
Paldi, Ahmedabad

[+91 79 26587262](tel:+917926587262)

suresh,

please send me the articles. would like to go thru them.

regards

mangal

Selene I think knowingly omitted the bio tenodesis screw technique which is simpler than I think the two incision technique which is easier said than done
second point would be that the tibial nerve is just besides the FHL tendon so we have to careful about it.
When using an single incision technique it would be good to harvest the FHL with ankle in maximum plantar flexion so as get maximum length.

Regards,
Dr. Malhar Dave
Baroda

--

Fantastic. What more can one ask for!

This thread is turning out to be a book chapter almost!!

What with mention of various risk factors by various members and a detailed surgical technique by selene.

I will try to do some good intraop pics to complete the set.

Selene - some clarifications if I may.

1. Which is the Haglund and which is the enthesophyte? Is my marking on the xray correct (H - Haglund and E - enthesophyte)?

If my marking is correct, does excision of the enthesophyte risk detachment of the insertion intraop (especially on the partial side)?

2. Anchors: what size, how many, and where exactly should they be placed (medial and lateral or medial only - since only the medial side is being opened)?

3. Your reply mainly relates to the left (complete rupture) side?

What about the partial rupture. Only Debridement, or Debridement and reattachment of the ruptured portion by anchors?

4. DVT Prophylaxis - do you normally start the LMWH before or after surgery.

Mangal Parihar

<http://www.ilizarov.in>



your marking is spot on as always.

you can take a start midline incision split the tendon in midline and remove the Haglunds and the enthesophyte in a better way.

then debride and take a call on the tendon mass remaining with you

Regards,

Dr. Malhar Dave

Baroda

Malhar,

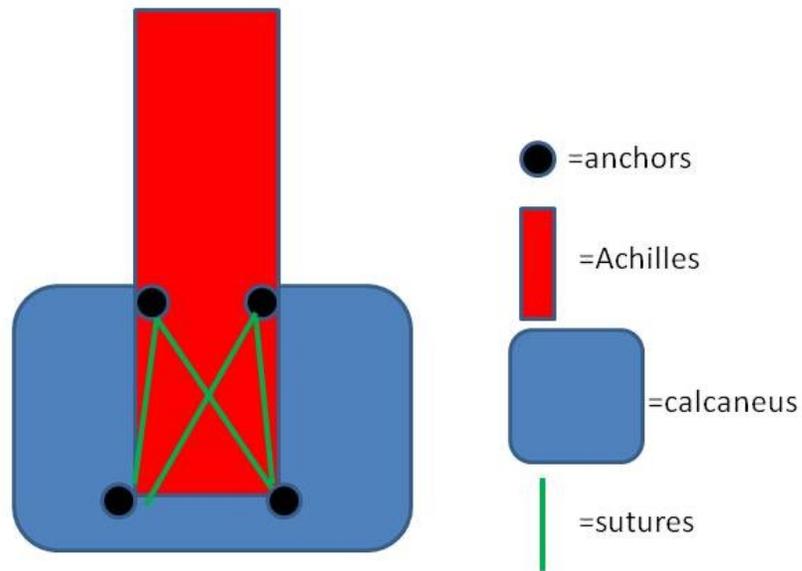
You are correct. I assume that the biotendosis screws are still not available in India. If they are the easiest technique is:

1. Prone position.
2. FHL transfer with the following technique:

A posterior incision was placed on the posterior aspect of the Achilles. The incision was taken all the way down to the epitenon where the epitenon was then incised. The tendon was split in half. The tendon was elevated subperiosteally at the insertion site. The tendinotic tissue and calcification were debrided, leaving less than 50% of the Achilles intact. The Halgund's was resected with a sagittal saw. It was decided that an FHL tendon transfer would be necessary. The deep fascia of the posterior compartment was then incised with a 15 blade and extended proximally and distally with a Metzenbaum scissors. The FHL muscle belly was then identified and pulled such that the FHL tendon could be seen. The FHL tendon was visualized going through the fibro-osseous canal with maximum plantar flexion and great toe plantarflexion. The FHL tendon was released at its most distal aspect through the fibro-osseous canal. The tibial nerve was visualized and was protected throughout this procedure. Next, a drill hole, the same size as the tendon, was made just anterior to the Achilles tendon and all the way down through the inferior aspect of the calcaneus. A grasping suture was placed in the FHL tendon. This was then brought through the calcaneal drill holes through the inferior aspect of the foot. With the foot held in maximum plantar flexion, the FHL tendon was tensed and held in place with a biotnodesis screw. Next, the wound was thoroughly irrigated. Next nonabsorbable was used to tack down the FHL muscle belly to the Achilles. Two anchors were then placed on either side of the FHL in the calcaneus. The sutures of the anchors were brought through the Achilles 2cm proximal to the insertion site so that when they were tied, the Achilles would be pulled distally. These suture limbs are NOT cut.

Next, nonabsorbable suture was used to repair the Achilles tendon. Two anchors are placed distally in the calcaneus, distal to the insertion site. The limbs of the sutures in these anchors are then tied to a limb of the sutures in the first two anchors. You will end up with a crossing pattern over the Achilles insertion to hold it down (SEE ATTACHMENT). The wound was thoroughly irrigated with 2-0 Vicryl sutures and staples. The patient was placed in bulky Jones splint in resting plantarflexion, neutral inversion and eversion.

SGP



Mangal,

see below.

SGP

1. Which is the Haglund and which is the enthesophyte? Is my marking on the xray correct (H - Haglund and E - enthesophyte)? YOU HAVE MARKED IT CORRECTLY

If my marking is correct, does excision of the enthesophyte risk detachment of the insertion intraop (especially on the partial side)? NO. YOU CAN DETACH 80-90% OF THE TENDON. IT WILL BE OK WITH THE ANCHOR TECHNIQUE I HAVE SHOWN YOU

2. Anchors: what size, how many, and where exactly should they be placed (medial and lateral or medial only - since only the medial side is being opened)? I AM NOT SURE WHAT IS AVAILABLE IN INDIA. BUT 3.5 OR 4.0 ANCHORS ARE PREFERRED. SEE DIAGRAM FOR ORIENTATION OF ANCHORS

3. Your reply mainly relates to the left (complete rupture) side? DO THE SAME FOR BOTH SIDES. What about the partial rupture. Only Debridement, or Debridement and reattachment of the ruptured portion by anchors? SAME AS FOR THE RIGHT

4. DVT Prophylaxis - do you normally start the LMWH before or after surgery. START IT THE MORNING AFTER SURGERY

Selene G. Parekh, MD, MBA
Associate Professor
Department of Orthopaedic Surgery
Adjunct Faculty
Fuqua Business School
Duke University
selene.parekh@gmail.com

If you'd like to watch one of my videos on this:

Part 1: http://www.youtube.com/NCOCatDuke#p/u/6/S_1ur94eXTk

Part 2: <http://www.youtube.com/NCOCatDuke#p/u/5/1quCnfbf6Po>

SGP

Selene

Thanks for putting so much effort into your replies.

"Bystanders" like me learnt a lot from this discussion and will execute the next repair (I think I've got one in a couple of weeks) much better.

And Mangal, I hope folks on the list will learn how to post effectively on the list and initiate a discussion from your style of posting.

Regards

Murali Poduval
Puducherry
Dr Murali Poduval
MS DNB
Orthopedic Surgeon.

great. the action is a bit speeded up, but i could understand it after reading your text description in the earlier mail..

as usual questions for some more clarifications.

1. This midline approach, does it have lesser problems with wound dehiscence etc compared to the posteromedial and posterolateral approaches?
2. what is the biotenesis screw - seems like the regular screw which they use for the ACL, albeit of bioresorbable material? is there a particular size? i think that is available here.
3. when you pass the suture through the tendon, you just did a single pass thru the tendon. we dont need to do multiple criss cross passes thru the tendon to prevent cutting out of the suture anymore?
- 4.. the second set of anchors you put in (distally). they didnt have any suture attached to them? you threaded the suture from the first two anchors through these as you put them in?

thanks again.

mangal

Mangal,

please see answers below:

sgp

On Thu, Aug 25, 2011 at 5:43 AM, Dr Mangal Parihar <mangalparihar@gmail.com> wrote:

great. the action is a bit speeded up, but i could understand it after reading your text description in the earlier mail..

as usual questions for some more clarifications.

1. This midline approach, does it have lesser problems with wound dehiscence etc compared to the posteromedial and posterolateral approaches? - THE MIDLINE APPROACH IS BETWEEN THE ANGIOSOMES OF THE POSTERIOR ANKLE, SO IN THEORY YOU ARE NOT CUTTING INTO ANY MAJOR DERMAL BLOOD SUPPLY. FURTHERMORE IS GIVES YOU EASIER ACCESS TO THE MEDIAL AND LATERAL ASPECTS OF THE HAGLUND'S

2. what is the biotenodesis screw - seems like the regular screw which they use for the ACL, albeit of bioresorbable material? is there a particular size? i think that is available here. - WE USE 5.5, 6.0. OR EVEN 7.0 DIAMETER, 15-23MM LENGTH BIOABSORBABLE TENODESIS SCREWS, DEPENDING ON THE SIZE OF THE TENDON

3. when you pass the suture through the tendon, you just did a single pass thru the tendon. we dont need to do multiple criss cross passes thru the tendon to prevent cutting out of the suture anymore? IF YOU DO A SINGLE INCISION TECHNIQUE, YOU ONLY NEED TO PASS THE FHL TRHOUGH THE BONE. THERE IS NO NEED TO PASS IT THROUGH THE ACHILLES TENDON. IF YOU USE A TWO INCISION TECHNIQUE, YOU WANT TO CRISS CROSS IT THOURGH THE ACHILLES AS YOU HAVE A LOT OF LENGTH ON THE FHL

4.. the second set of anchors you put in (distally). they didnt have any suture attached to them? you threaded the suture from the first two anchors through these as you put them in? - THAT IS NOT CORRECT. THE DISTAL ANCHORS SHOULD HAVE SUTURE IN THEM. BOTH LIMBS OF THE DISTAL ANCHOR ARE TIED TO ONE OF THE LIMBS OF EACH OF THE PROXIMAL SUTURE ANCHORS

sometimes difficult to pass 4 anchors in our patient population with smaller calcaneus.

Regards,
Dr. Malhar Dave
Baroda

Malhar,

Which companies provide these anchors and biotenodesis screws?

Mangal

Mangal,

The usage of 4 anchors and the criss cross suturing I have only assisted with Selene at Mumbai; I have personally

not done this type of suturing on my own. When ever I have used anchors they are the ones routinely available in our setup.
Regarding the biotenodesis screw because of non availability of other sizes I use the acl bio screw.

Dr. Malhar Dave
Baroda

Just on the topic about the tenodesis screws... I know Arthrex have started marketing in India and they do a variety of sizes. Avanta medical is the distributor.

Can get you the number of the International Manager if interested.

Bijayendra Singh,
Medway NHS Foundation Trust, UK
www.kosis.co.uk

Thanks Bijayendra
the number would be helpful
Dr. Malhar Dave
Baroda

which are the ones routinely available (anchors as well as acl bio screw) in our setup? (i have never used any, since i dont do any scopy)

mangal

8 x23 is usually used acl bioscrew
sutures anchors mitek or titanium ones without suture material attached

Regards,
Dr. Malhar Dave
Baroda

Mangal,

The Suture Anchors useful will be Cork Screw(Arthrex) - 5.5 mm titanium- loaded with double Fibrewires
Regarding biotenodesis screws, smallest diameter available is 7 mm. 7-23, 7-28 mm screws available. we prefer Biocomposite material over PLLA again available from Arthrex.
Contact Person for Arthrex Mr. Sunder Rajan 09840277701

After attending Foot and Ankle seminar at Mumbai last year which was organised by Selene Parekh, we have used his technique for last couple of Tendo Achilles repairs with extremely good results- Thanks Selene !

Dr. Kalpesh M. Trivedi
Aastha Arthroscopy and Joint Surgery Clinic,
201, Karnavati Hospital Building, Ellisbridge,
Ahmedabad.

sorry, but I am only able to see a Jones fr fixation with this link. Is there another link everyone else is seeing?
thanks

Rajesh rajesh84@asianetindia.com

thanks.

in the single incision technique, what do we do to the distal part of the FHL tendon?

didn't see a description of how it is stabilised, if at all.

mangal parihar

do nothing

let it retract within the foot

there are interconnections with fdl so the patient does not have a functional loss of great toe flexion

Regards,
Dr. Malhar Dave
Baroda

no, it leads to 'Haglund's resection and FHL transfer'

anyways, if you look at the list on the right in that window, you should be able to see the video named above

mangal parihar

dear mangal

guess as i can, bilat TA ruptures ought to be iatrogenic- post
steroidal infiltration for a heel bursitis !

A conservative cast on partial rupture side is good enough. A turn
graft passing through a hole in calcaneum gives very good result (I
have done 9 of them)

Dr Shree Prakash Singh
AN Magadh Medical College,
Gaya, Bihar

thank you all for the opinions.

we did the case today.

Prone position, posterior midline approach.

Left side: there was a large rupture, but the lateral 1/2 or 1/3 seemed continuous. however the tissue in that area was not normal.

i did an excision of the enthesophyte, Haglund's prominence and an FHL transfer with 7mm bio absorbable ACL screw, excised the seemingly intact, but abnormal lateral part of the tendon, and sutured it distally, with two 5 mm titanium anchors and fiberwire.

it needed to be plantarflexed significantly to get the proximal part of the tendoachilles down to the Calcaneus.

pics attached.

Right Side: i couldn't really visualise a rupture, but there was significant tendinosis, just proximal to the insertional area, in the middle of the tendon. i incised into the center of the tendon and excised that portion, which was more towards the anterior aspect, and an excision of the haglund's prominence.

in the process of exposing the haglund's, i did detach a large amount of the TA insertion. which i fixed with two 5 mm titanium anchors and fiber wire.

closed the longitudinal cut in the TA with transverse sutures, to appose the two parts.

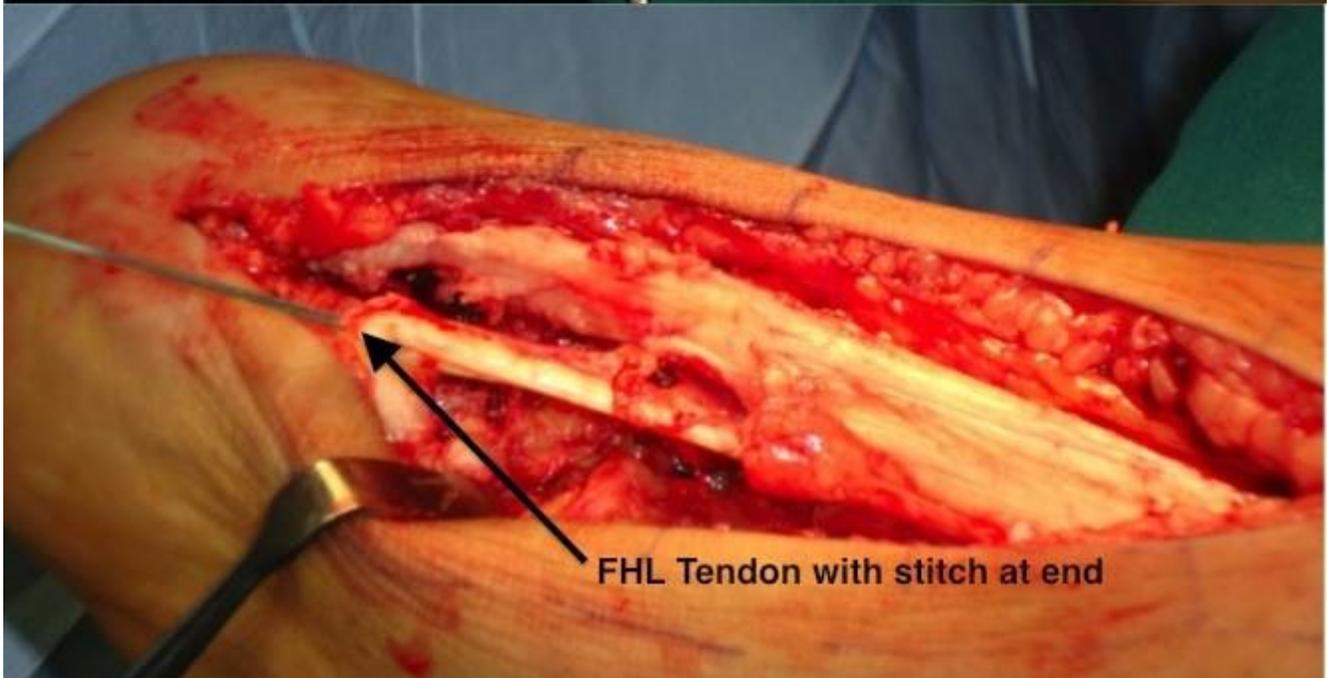
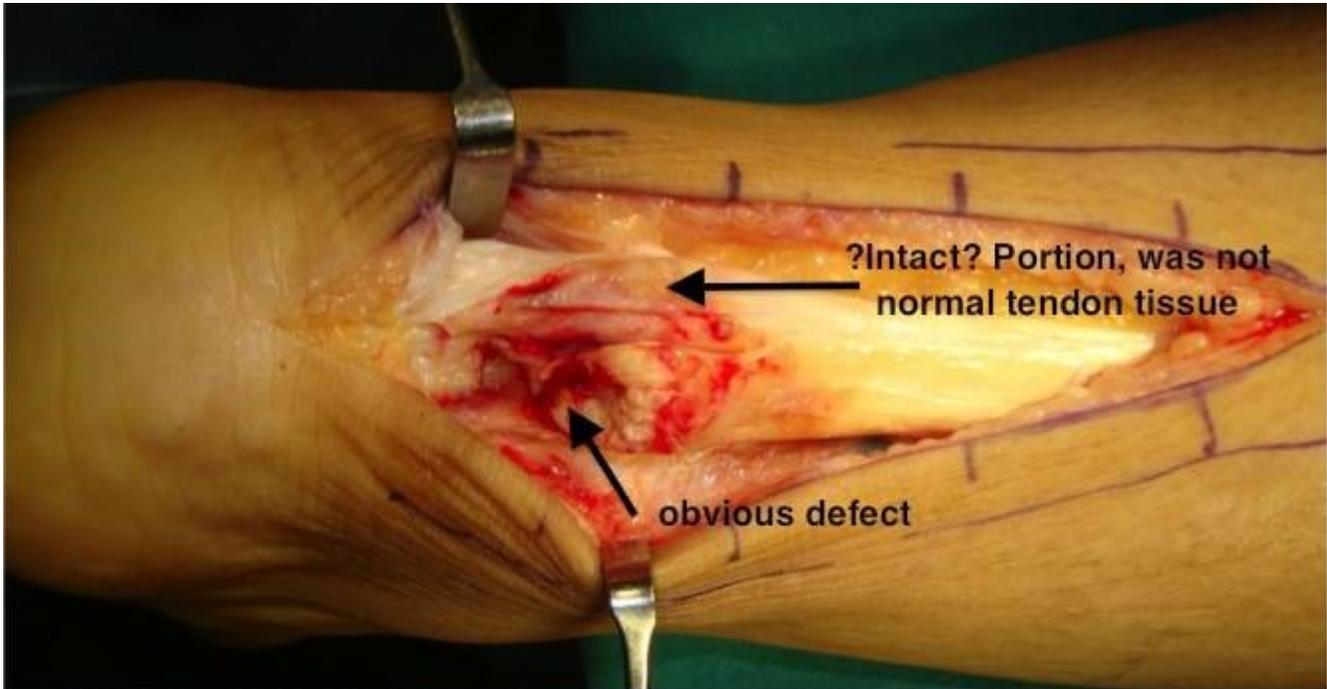
i was able to give a cast in mild equinus. (actually could get the foot to neutral)

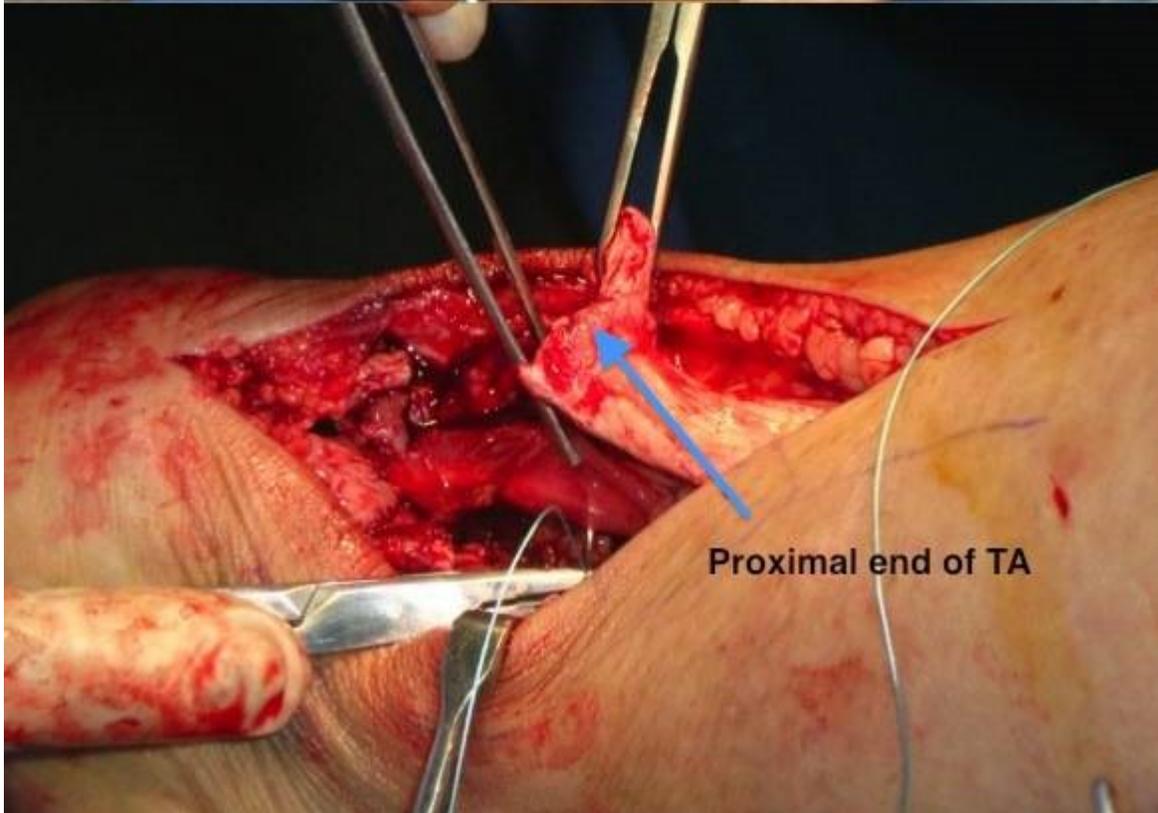
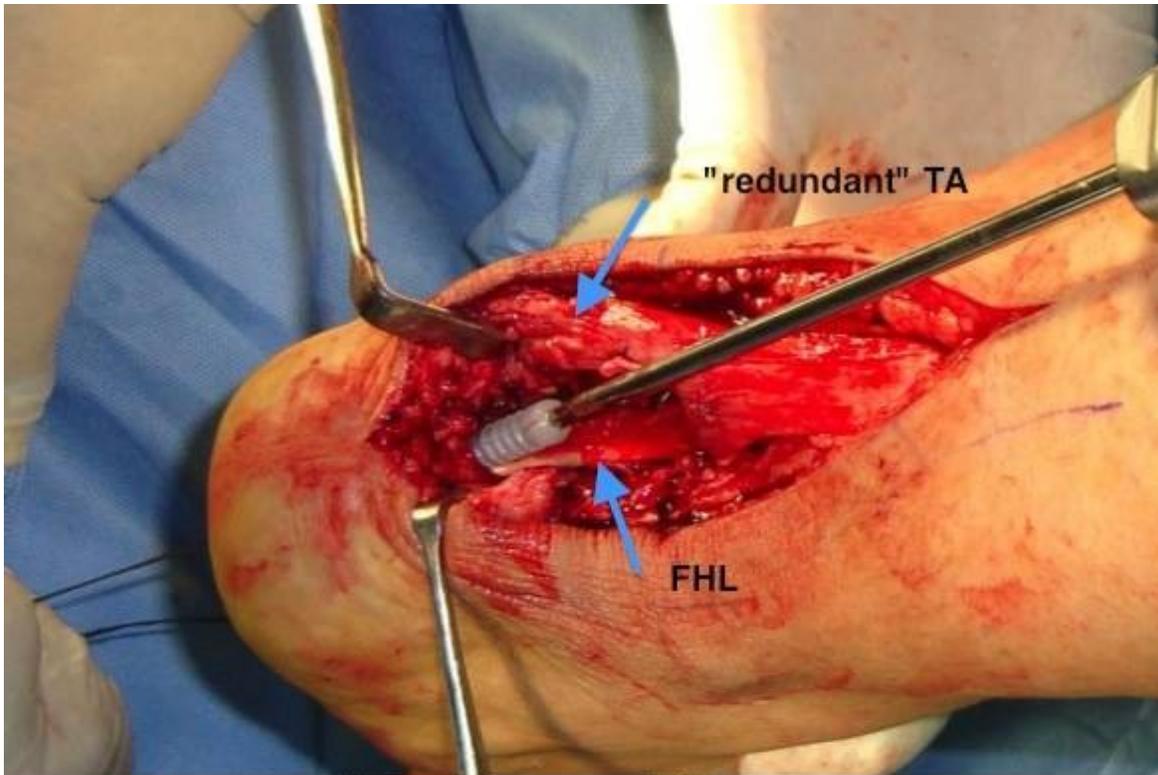
while doing the surgery, some questions came to mind.

1. what happens if the debridement is not adequate. does the patient continue to have pain? or is the repair at risk due to poor tissue.
2. what if we have severe equinus position due to excision of the tendon tissue, and still do not get good apposition of the TA end, to the calcaneus. is the fact that it is held in place by the sutures, (and FHL graft) good enough?

regards

mangal parihar





Mangal,

Pic look great. With regards to the questions:

1. I have not had any recur. IF your debridement what appeared to be tendinotic tissue and with the FHL transfer, I have never had an issue.
2. I would see them in 10-14 days. At that time, take the sutures out and start casting them out of the equinus. See the patient every 2 weeks. Usually by week 4, they are almost back to neutral. At week 6, let the patient weight bear in a boot and start physio therapy.

SGP

sometimes maintaining an traction on the TA for about 5 minutes intra op with the sutures for holding the tendon gives some length.
you can also combine v -y plasty with the fhl transfer so as to gain length.
it has been observed that the fhl hypertrophies over a period of time which has been proved by ultrasound.(level 5 evidence)

Dr. Malhar Dave
Baroda

By the Mangal superb pictures!

Dr. Malhar Dave
Baroda

was local inj steroid given?

dr vishal revankar vishalrevankar80@gmail.com

Dear Dr Mangal Sir ,
Continuing the discussion,I have came across skin problems such as necroses on posterolateral inscision.how it is to be deltwith? next complication is thinning out of the tendon at the site of anastomosis.kindly guide me regarding the same.
DR.R.S.GULVE.
GULVE HOSPITAL.
AKLUJ.

Selene,

What is the role of multiple vertical incisions in a tendon that appears white & unhealthy. I had seen this in Patella tendon tendonitis & after multiple incisions, there was a change in the appearance of the tendon. In Mangal's case, will this be sufficient without doing anything?

Dr. Nishith Shah
Arthroscopy- Sports Medicine

Aash Arthroscopy centre
Opp. Jalaram temple
Paldi, Ahmedabad

I am learning just as you.

People have given suggestions on how to avoid problems earlier in this thread.

If there is a problem I know that I would put a VAC on it.

Thinning of the tendon is tackled by an FHL transfer (again described previously in this thread)

Wait for more inputs from people with more experience.

Dr Mangal Parihar

<http://www.ilizarov.in>

Nishith,

Good question. It doesn't appear to be problematic at the Achilles. An aggressive debridement with the tendon transfer works well. The remaining Achilles in my experience has not caused further issues.

With regards to the wound healing, if you look at the angiosomes, a posteromedial or lateral approach can give more wound healing issues, as you are cutting the terminal branches of dermal vasculature. The straight posterior approach does not do this, so in theory it has less chances of complications.

SGP

Interesting indeed. I was under the impression that postmed or postlat incision was better than postr midline. And this is what i have always done, usually postmed as the knee and hip can be flexed and abducted and allow surgery to be done without the potential risks of prone position. And touch wood, so far no problems with wound breakdown leading me to think that the major cause of this is due to bad tissue handling, and that gentleness will avoid many problems.

1 other issue is that I always thought that postr midline incision will cause later problems at the calcaneal prominence when it rubs against the shoe. Is this an issue at all?

Dr Girish Kumar FRCS
Sent from my iPhone

Girish,

This was my concern as well, until I started doing this approach. Surprisingly, there a minimal issues, if any, with the heel counter of a shoe. I would exercise caution in keloid patients. Other than those, this has become my standard incision.

sgp

Excellent new info for me and I am sure many others too. Thanks a million for sharing this info. But patient has to be definitely prone to do this approach. This can cause many problems if not taken great care. And I would worry about it a lot in smaller centres.

Dr Girish Kumar FRCS

dear dr selene

sir can this midline approach be used in small children such as CTEV

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good question. I no longer take care of kids under 11 yo so I would not know the answer to the CTEV. Good thought though.

sgp

I think a possible explanation for Nisith's question would be as such there is a zone of hypo vascularity in TA so maybe the mutiple incisions may not work....

Regarding Dr Girish concern for footwear issues with the scar, usually the percentage of people using significantly shoes in their day to day life is less as compared to the western world so I think we are at an advantage over here to use the central incision and it really gives a great access to the diseased areas.

Regards,
Dr. Malhar Dave
Baroda