Interesting case of recurring Cellulitis

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- Male- 55 years, borderline DM-2 on treatment, Farmer
- Patient had c.o right sided thigh swelling since Dec 2017.
- Patient had history of trivial injury before sometime.
- Patient consulted multiple times elsewhere

- Patient was managed with multiple courses of antibiotics.
- Patient underwent 3-4 interventions of incision and drainage.
- One time FNAC and biopsy was done from the lesion.
- Biopsy showed chronic inflammation with non-caseating granulomas.
- The operative sample was kept in formaline and microbiological cultures and fungal stains were not done.

FNAC & HPE SPECIALIST
IMC Regd. No. M.B.B.S.-G-14570, M.D.-G-3693, L.M.C.323

Patient : [redacted]
Age / Sex :
Referred By :

Reg ID : 17PI-1223-012
Order Ref. : 17OD-1223-012
Order Date : 23-Dec-2017 12:14:PM

FINE NEEDLE ASPIRATION CYTOLOGY.

Slides number F/55/17 (Ranchhodbhai).

Clinical History (A) FNAC from mid thigh soft tissue swelling, approx. 12.0 X 10.0 c.m. sized. Firm to hard in consistency, since one month, painless, non tender. Peau'd orange changes seen.

(B) FNAC from right leg small size swelling, near knee joint. Approx. 4.0 X 3.0 c.m. sized.

Microscopy Cytology smear from both shows mainly neutrophils, lymphocytes & blood.
Cytology smear froma (A) shows occasional group of atypical round cells with prominent nucleoli are seen.

Opinion ***(A) MAINLY INFLAMMATORY CELLS.***

- ***Occasional group of atypical round cells with prominent nucleoli are seen.***

- ***True-cut biopsy is necessary in this case for definite & final diagnosis + Radiological co-relation.***

(B) INFLAMMATORY LESION.

Note SLIDES ARE GIVEN WITH REPORT.

Order Date : 25-Dec-2017
06:10:PM

HISTOPATHOLOGY REPORT

SPECIMEN NO: L/68/17

SPECIMEN

Soft tissue swelling over right thigh - True-cut biopsy done.

Superficially situated (Sub cuteneous) swelling in mid thigh. Approx. 12.0 X 10.0 c.m. sized. Firm to hard in consistency, since one month, painless, non tender. Peau'd orange changes seen.

GROSS EXAMINATION

Three long true-cut biopsy strips recieved for HPE.

Entire specimen submitted for HPE study.

MICROSCOPY

Section shows mainly fibrocollagenous tissue.
There is infiltration of lymphocytes, plasma cells, eosinophils & few neutrophils are seen.
Few non caseating granuloma with multinucleated giant cells are seen.
Patchy inflammatory infiltrate seen.

OPINION

CHRONIC GRANULOMATOUS INFLAMMATION

CHRONIC NON SPECIFIC INFLAMMATION.

NON CASEATING GRANULOMA.

NO EVIDENCE OF MALIGNANCY SEEN.

ADV. : PAS & GMS STAIN FOR FUNGUS + AFB STAIN AT REFERENCE CENTRE.

- Patient did not show improvement.
- Patient had increased swelling involving right thigh, right knee and extending upto right lower leg.
- Patient underwent MRI – which was showing diffuse edematous changes in muscles of thigh and leg with focal enhancing collections in adductor muscles with diffuse edematous changes in skin and subcutaneous tissue.

[redacted] M/52YRS. DATE: 31/03/2018

MRI OF RIGHT THIGH:

MR imaging of the right thigh was performed using high resolution T1, T2, STIR weighted serials sections in the axial and coronal planes using a dedicated extremity coil.

Large area of abnormal signal intensity edema and inflammation seen involving subcutaneous fat of anterior and anterolateral aspect of right upper thigh.

Very small component of the lesion is seen piercing deep fascia and seen extending into intramuscular compartment of vastus medialis.

Lesion appear isointense on T1 and iso to hyperintense on T2/PDFS images and shows patchy restricted diffusion.

No evidence of any collection within lesion.

Few enlarged lymph nodes seen within right superficial femoral region-reactive nodes.

Size of largest node measures 13 x 13 mm.

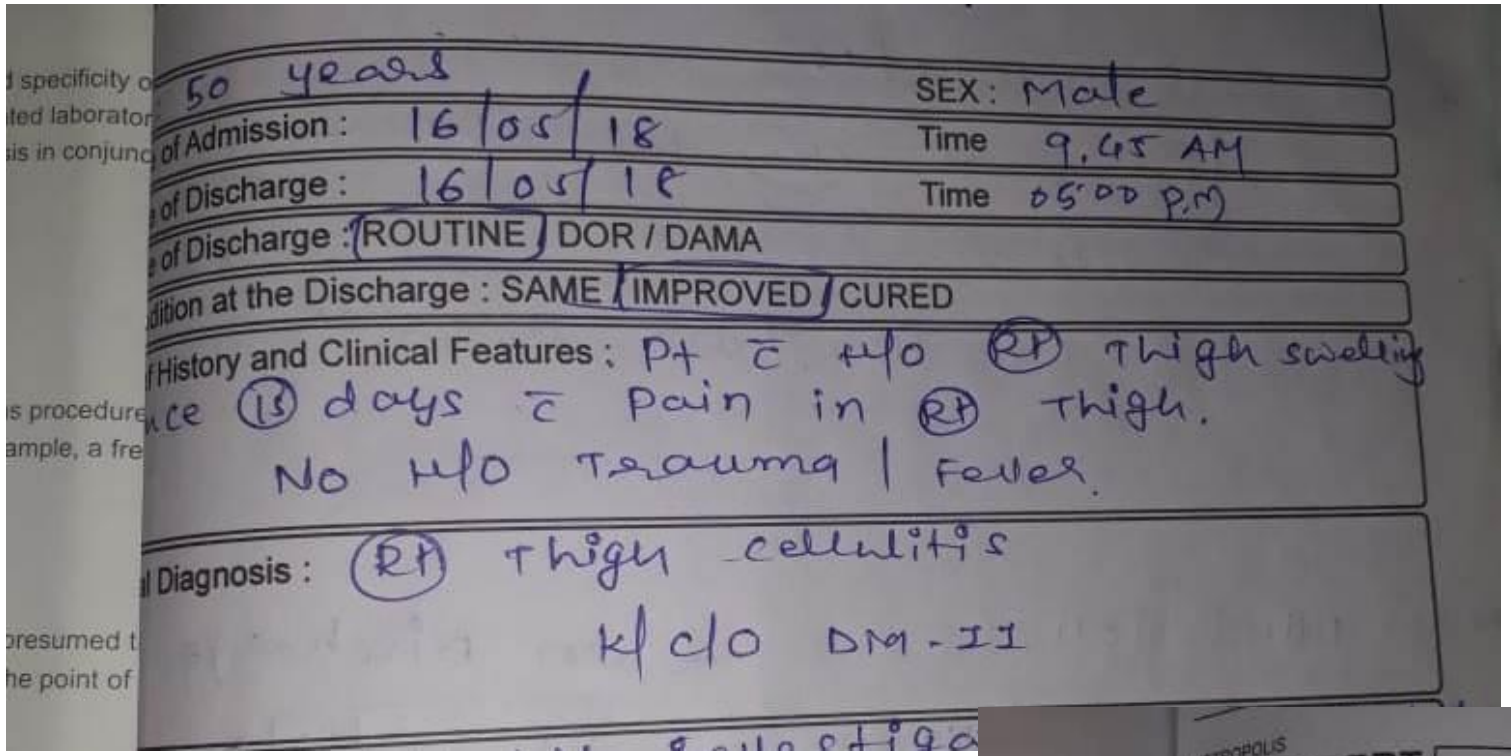
No evidence of vascular invasion is seen.

The thigh muscles demonstrate normal signal intensity.

No evidence of soft-tissue fluid collection is noted.

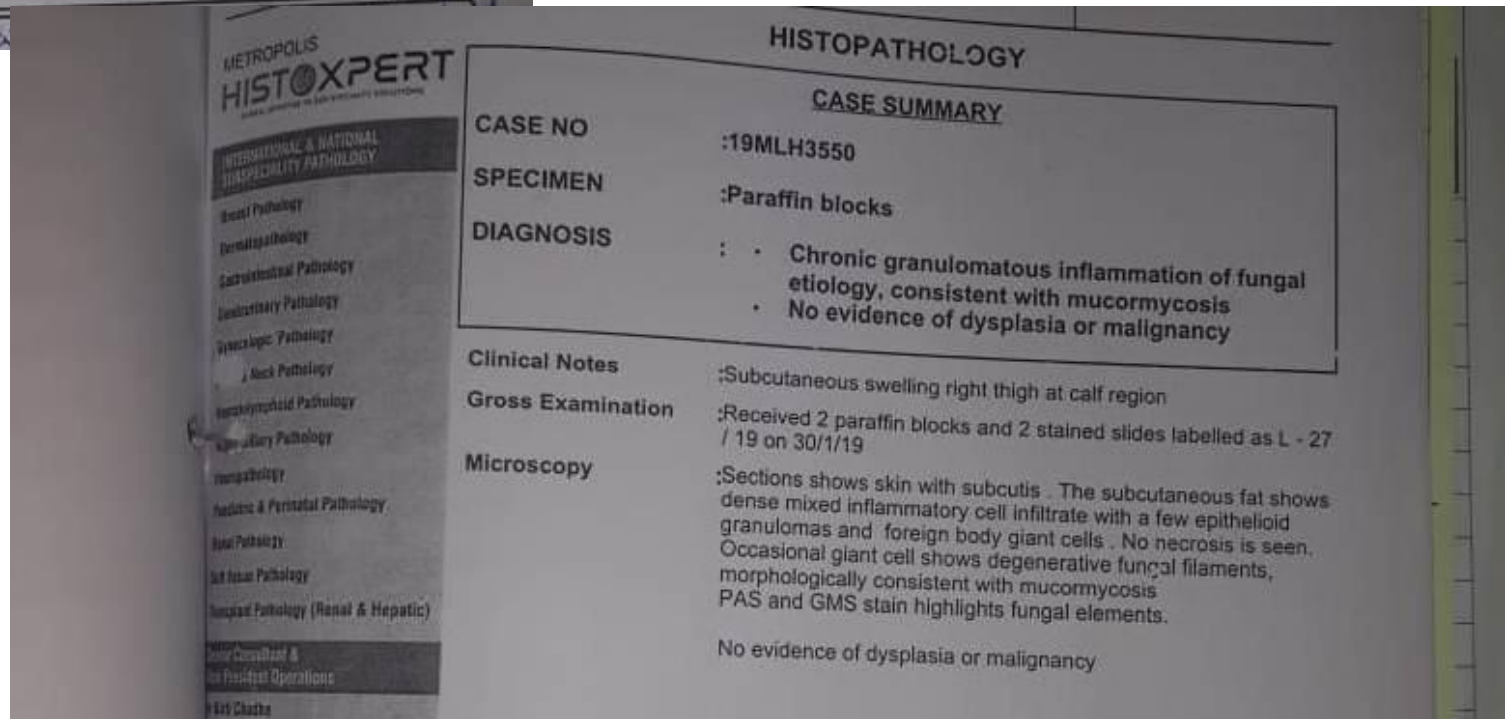
Cntd.

- In one of the debridement, again histopathology was done, which was suggestive of chronic granulomatous inflammation ? Mucormycosis.
- Patient was referred for ID consultation almost after one and half years of illness.



50 years
SEX: Male
of Admission : 16/05/18 Time 9.45 AM
of Discharge : 16/05/18 Time 05.00 P.M
of Discharge : ROUTINE / DOR / DAMA
dition at the Discharge : SAME / IMPROVED / CURED
History and Clinical Features : Pt c H/O (RT) Thigh swelling since (15) days c Pain in (RT) Thigh.
No H/O Trauma / Fever.
Diagnosis : (RT) Thigh cellulitis
K/C/O DM-II

January 2019



METROPOLIS HISTOXPERT

HISTOPATHOLOGY

CASE SUMMARY

CASE NO	:19MLH3550
SPECIMEN	:Paraffin blocks
DIAGNOSIS	: • Chronic granulomatous inflammation of fungal etiology, consistent with mucormycosis • No evidence of dysplasia or malignancy
Clinical Notes	:Subcutaneous swelling right thigh at calf region
Gross Examination	:Received 2 paraffin blocks and 2 stained slides labelled as L - 27 / 19 on 30/1/19
Microscopy	:Sections shows skin with subcutis . The subcutaneous fat shows dense mixed inflammatory cell infiltrate with a few epithelioid granulomas and foreign body giant cells . No necrosis is seen. Occasional giant cell shows degenerative fungal filaments, morphologically consistent with mucormycosis PAS and GMS stain highlights fungal elements. No evidence of dysplasia or malignancy

RADIOLOGY DEPARTMENT

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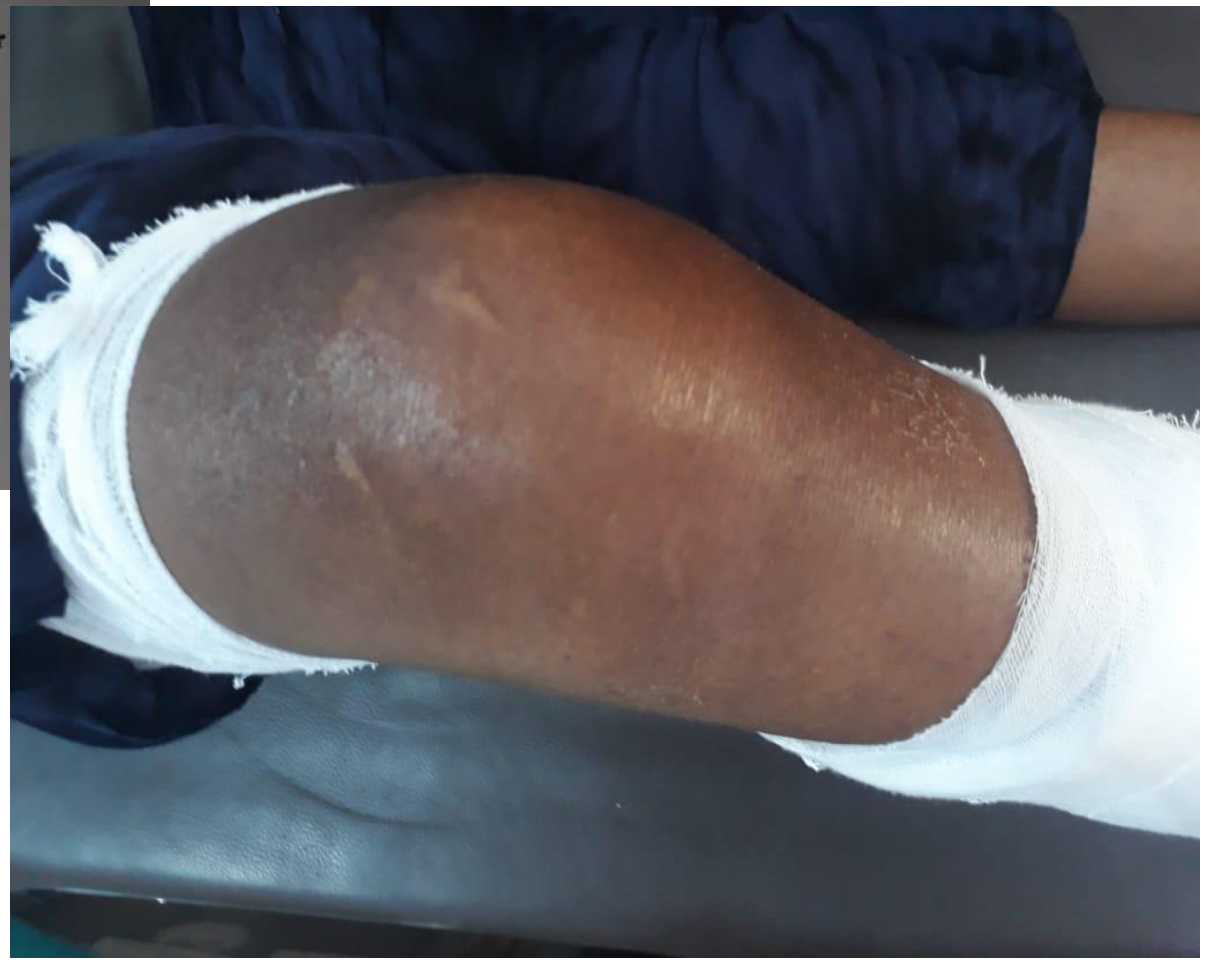
IMPRESSION:

* Contrast enhanced MRI findings show diffuse edematous changes in muslces of thigh and leg with focal peripherally enhancing collections in adductor muscles at upper third thigh level assosciated with diffuse edematous changes in skin and subcutaneous tissue as described - p/o infective polymyositis (necrotising) appear likely.

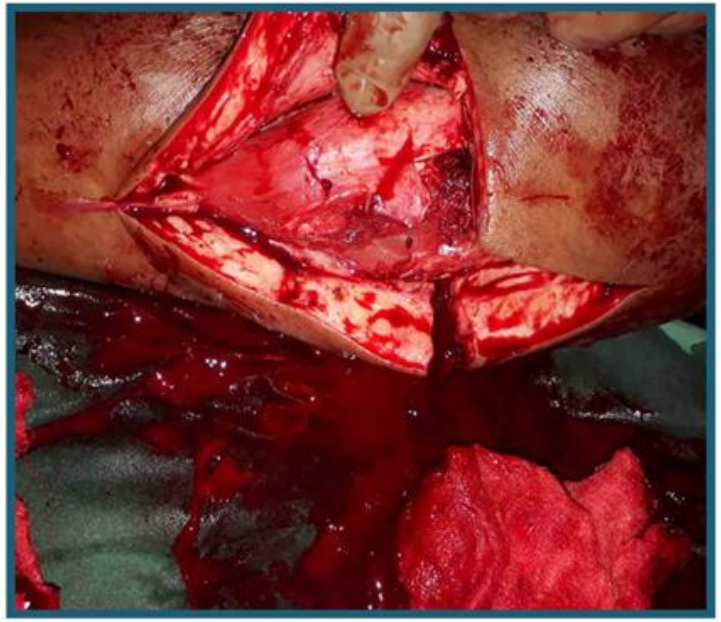
As compared to previous MRI dated 31.3.2018 -

There is marked increase in disease process.

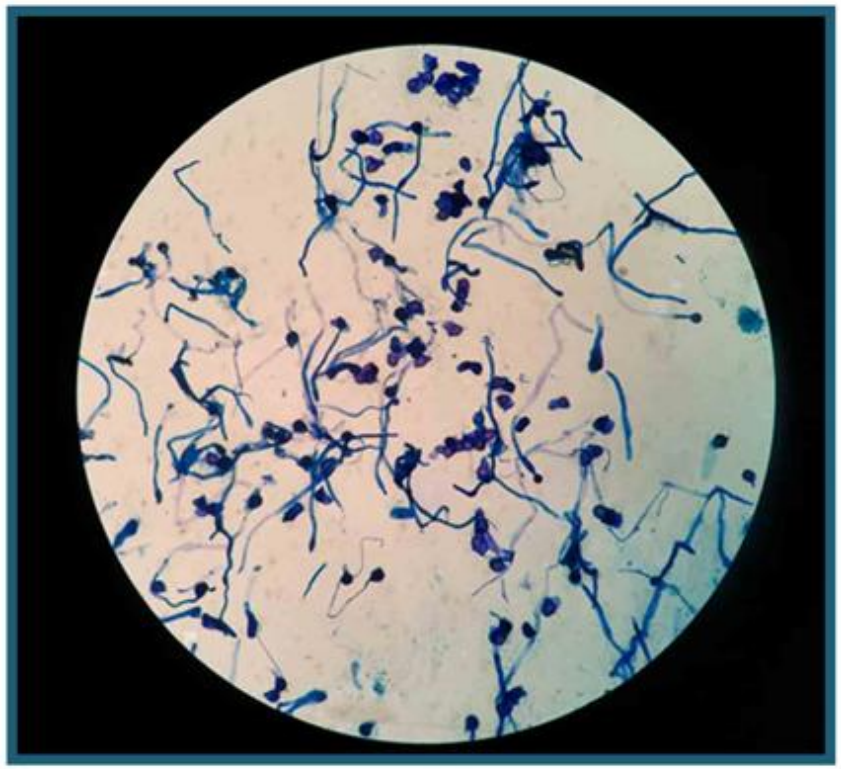


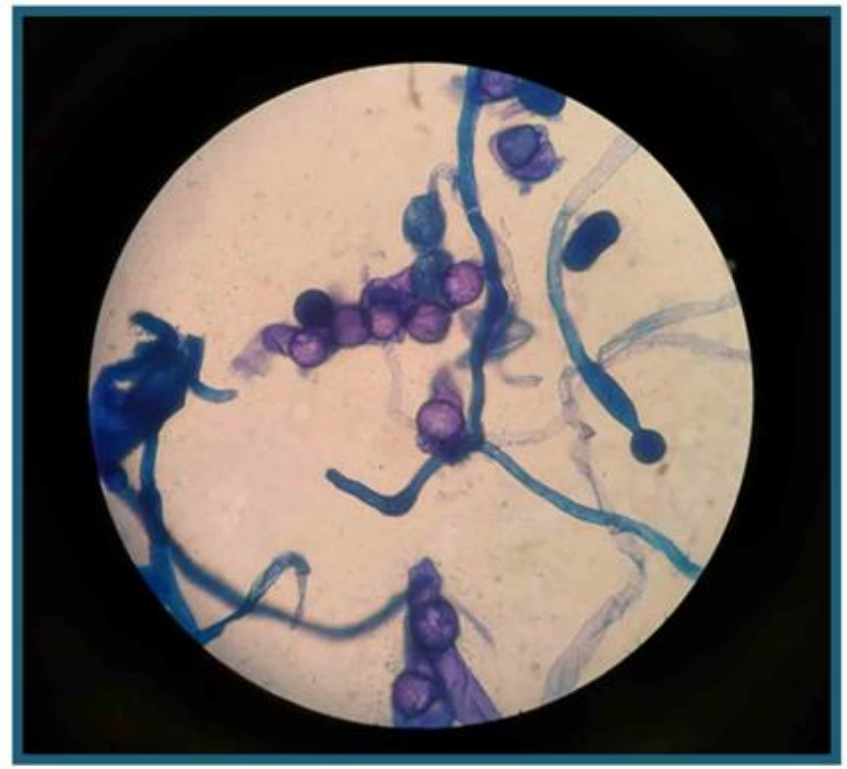
May 2019

- An atypical etiology was thought.
- All antimicrobials were stopped and patient was posted for repeat debridement.



Pic 1: Intra-operative picture of the patient showing healthy muscle tissue and thickened subcutaneous tissue





Pic 2 and Pic 3: Low and High power field showing large, septate hyphae and zygospores

Cultures and biopsy were sent and patient was started on Amphotericin B deoxycholate.

Fungal cultures came positive and MALDI identification showed *Basidiobolus ranarum.*

Patient was put on Itraconazole and patient responded well.

- After appropriate antifungal Rx

Learning points

- Entomophthoramycosis is usually a chronic, non-angioinvasive infection in relatives immunocompetent individuals.
- Infections causes by *Basidiobolus ranarum* often begin as a nodular subcutaneous lesion on the trunk, arms or buttocks.
- Suspicion of atypical/fungal etiology is required in management of such patients.

- Patient had delay in diagnosis of almost one and half years after onset of symtoms.
- Tissue diagnosis and cultures with Infectious diseases consultation hold priority over empirical treatment.

Thank you..