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Pathology: the science behind the cure
DIAGNEXIA
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Case report: Conidiobolomycosis; A rare fungal infection in tropics

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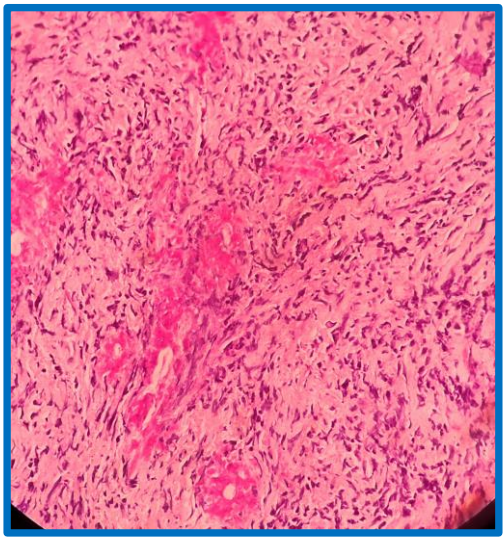
Background

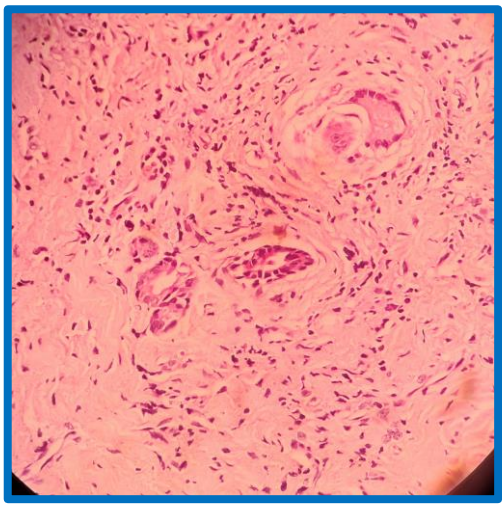
Conidiobolomycosis/ Subcutaneous zygomycosis is an unusual indolent mycotic disease in tropical and subtropical countries. This infection commonly affects nose and paranasal sinuses of middle-aged adults. This is often misdiagnosed as a soft tissue tumour. It is caused by a saprophytic fungus named 'Conidiobolus Coronatos' and 'Conidiobolus incongruous. They can survive in soil , dried vegetables and gut of amphibians and reptiles for long period. Therefore, people involved in agricultural work directly or indirectly are more prone to this infection. The nasal mucosa below the inferior turbinate is predominantly affected and appears as a uniform nasal swelling, forming a centro facial deformity.



Splendore hoeppli phenomenon

Case presentation

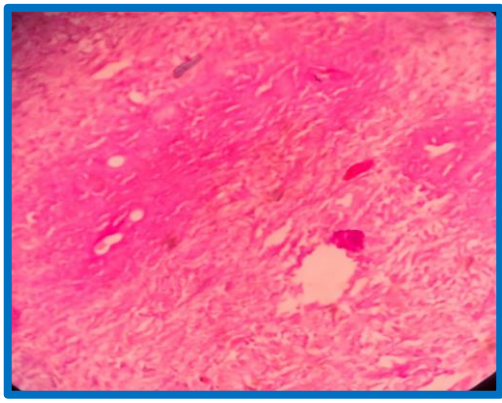
A 68-year-old lady presented with slowly progressive uniform nasal swelling for 6 months duration. There was no history of nasal bleeding or pain. On examination, there was generalized swelling of the nose with swollen inferior turbinate. There was no history of diabetes, HIV infection, trauma to the affected site or immunosuppressive drug intake. Xray sinuses revealed mild haziness in maxillary sinuses.



Giant cell rection with vague granulomas

Histopathological assessment

Biopsy of the inferior turbinate revealed multiple mixed inflammatory cells, giant cells and granulomas in the submucosa. Splendore Hoeppli phenomenon was present at the centre of these inflammatory infiltrates. Multiple foci of this radiating eosinophilic material noted ensheathing sparse fungal hyphae. PAS stain revealed some thick-walled fungal hyphae. Even though culture is the gold standard for diagnosis, it was not done as patient was reluctant for re-biopsy. These findings were consistent with the diagnosis of Conidiobolomycosis infection. Following discussion at MDT meeting with the mycologist, the patient was treated with oral antifungal therapy and there was a marked clinical improvement after the treatment.



PAS stain

Conclusion

This case illustrates unusual histological presentation of rare fungal infection in tropics. Conidiobolomycosis should be brought into mind as a differential diagnosis of subcutaneous soft tissue swelling in rhino-facial region in farming communities. The characteristic Splendore Hoeppli phenomenon with chronic granulomatous inflammation is the gold standard in histology with fungal culture. Early suspicion and timely referral by primary care physician will help the early diagnosis.

References

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