# Cytological diagnosis of Malignant melanoma of left foot

**K Ram babu[1], Sudhir Kumar Vujhini[2], N Vivekanand[3], V Leela rani[4], Rakesh Uppu[5]**

**[1]DNB(Pathology), Grade II Specialist, Department of Pathology, ESIC Model Hospital, Nacharam, Hyderabad , [2]Assistant Professor of Transfusion Medicine, NIMS, Hyderabad, [3]Associate Professor of Pathology, Osmania Medical College, Hyderabad, [4] Grade II Specialist, Department of Pathology, ESIC Super Speciality Hospital, Hyderabad, [5] Senior Resident, Department of General Surgery, ESIC Model Hospital, Nacharam, Hyderabad. Telangana.**

**Address for correspondence: Dr.K.Rambabu, H.No 312/2 RT,Saidabad colony,Hyderabad – 59. Telangana. India.**

**Email: krambaabu@gmail.com**

**ABSTRACT**

Malignant Melanoma is an uncommon case in cytology and it can mimic mesenchymal lesions if spindle cell component predominates. The differential diagnosis can be narrowed in its favor if proper protocol of examination and assessment is followed. Retrospective analysis also helps in some cases

**Key words:** Skin, Malignant Melanoma, Fine needle aspiration cytology.

**INTRODUCTION**

Malignant Melanoma most often presents as an asymptomatic pigmented lesion with recent growth and cytology reveals the characteristic neoplastic cells. Thus it is not a difficult pathology to recognize, it is difficulty when spindle cell component predominates wherein mesenchymal lesions need also to be considered [1]. The diagnosis is further straight forward if it is a metastatic lesion[2,3,4]. It can be a difficult entity for diagnosis in spindle cell and other sub types if proper protocol is not followed in an approach towards diagnosis, patient examination and review of relevant history if any[5].

**CASE REPORT**

A 58 year old male patient was referred from Surgery outpatient department for FNAC (Fine Needle Aspiration Cytology) of a pigmented papular lesion on left lower leg. He gave history of gradually growing papular, painful swelling present since one month. On examination it was 2.5 × 2.5 cm, tender and bleeds on touch. FNAC was attempted and the aspirate was hemorrhagic. Both air dried and H&E stained smears were examined and microscopy showed mild to moderately pleomorphic cells, predominantly spindle shaped, also containing few round to oval cells. Nuclei were round to oval and predominantly spindle shaped with a variable amount of cytoplasm. Nuclear chromatin was uniformly coarse and there were no prominent nucleoli. Other significant findings were the presence of blue black fine dusty pigment present extracellularly and also intracellularly in some of the cells [Figure 1].

The findings arouse suspicion of pigmented neoplastic lesion. Retrospective analysis was carried out and the patient was enquired about any significant contributing past history when he came to collect the report. Patient gave history of left great toe amputation one and half month back and biopsy was reported as Malignant Melanoma of left great toe on HPE (Histo pathological examination). Thus the final impression was "metastatic deposits of Spindle cell neoplasm, most probably of Malignant Melanoma". With the positive history we did not feel necessary for evaluation of pigment through special stains. Surgical faculty was consulted and the patient was referred for further treatment. Subsequent biopsy of the lesion confirmed the cytological diagnosis [Figure 2].

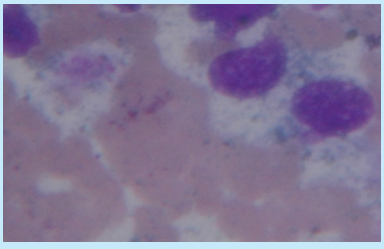

**Fig 1.** Smears showing large pleomorphic cells containing dusty pigment. [Giemsa stain, 1000x]

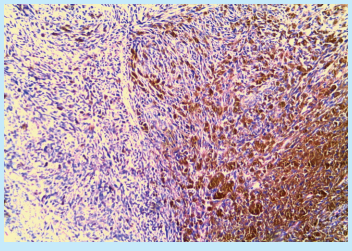

**Fig 2.** Section studied showing malignant spindle cells with melanin pigment [ H&E,10x].

**DISCUSSION**

In routine pathology practice it is not uncommon to face diagnostic dilemmas especially when spindle cell mesenchymal lesions are under consideration which encompasses wide variety of lesions[3,4]. Classic Malignant Melanomas will have features such as high cellularity, pleomorphic plasmacytoid cells with bi and multinucleate

forms, intranuclear inclusions and prominent nucleoli. Spindle cell subtype may not have all these features and instead the cells have smaller, elongated nuclei with uniform chromatin. Spindle cell melanomas can be highly pleomorphic mimicking high grade Pleomorphic Sarcomas of soft tissues. However in all the subtypes except Amelanotic Melanoma, pigment is a key indicator of Malignant Melanoma. But without any supportive evidence the pigment needs to be evaluated and is also essential to label the lesion as Malignant Melanoma.

The analysis will be made further difficult if a proper approach is not followed and this is reflected in our case. It could create unnecessary anxiety to the patient with its implications if undue delay in releasing the report occurs[3]. The chronology of events in this case established incomplete approach by us and Surgical department. We initially did not do complete examination and also did not ask for relevant history, also surgical faculty should have mentioned the previous surgery and the subsequent biopsy report of Malignant Melanoma on the cytology request form. This could have been extremely helpful in narrowing the differential diagnosis of cytology. With the significant contributing clinical history, biopsy report and contributing cytology findings, we could give the final impression in this case as "Spindle cell neoplasm, most probably Malignant Melanoma[1,2,5]. It was an interesting, though not an unusual lesion and it highlighted the importance of following proper protocol towards approach of any patient. Retrospective analysis if necessary is always helpful. Any lesson learned from the past is always contributing to one's growth.

**REFERENCES**

1. Gupta SK, Rajwanshi AK, Das DK. Fine needle aspiration cytology smear patterns of malignant melanoma. Acta Cytol. 1985;29: 983-988.
2. Murali R, Doubrovsky A, Watson GF, et al. Diagnosis of metastatic melanoma by fine-needle biopsy: analysis of 2,204 cases. Am J Clin Pathol. 2007;127: 385-397.
3. Doubrovsky A, Scolyer RA, Murali R, et al. Diagnostic accuracy of fine needle biopsy for metastatic melanoma and its implications for patient management. Ann Surg Oncol. 2008;15:323-332.
4. Rodrigues LK, Leong SP, Ljung BM, et al. Fine needle aspiration in the diagnosis of metastatic. J Am Acad Dermatol. 2000;42(5) :735-740.
5. Saqi A, McGrath CM, Skovronsky D, et al. Cytomorphologic features of fine-needle aspiration of metastatic and recurrent melanoma. Diagn Cytopathol. 2002;27:286-290.

**Acknowledgement:**

We thank Dr. Sunil Prabhakar Deshpande, Medical Superintendent, ESIC Model Hospital, Nacharam, Hyderabad, India for encouraging us to publish this article.

**Please cite this article as:** Ram babu K,Vujhini S K,Vivekanand, Rani L,Uppu R. Cytological diagnosis of Malignant melanoma of left foot. Perspectives in medical research 2016;4:1:60-61.

**Sources of Support:** Nil,Conflict of interest:None declared