

# Blue Nevus Of Cervix – A Case Report

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## Citation

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## Abstract

Pigmented lesions of the cervix are a rarity. Blue nevus occurs as an incidental finding in cervix in hysterectomy specimens from middle aged women. This condition is more appropriately called 'Focal Stromal Melanocytosis' as the findings are more analogous to dermal melanocytosis rather than to cutaneous blue nevi. There are only a couple of reports of cervical blue nevi in the Indian literature. We report a case of blue nevus in cervix in a middle aged south Indian woman. The lesion was not evident on clinical or gross examination. Microscopically, dendritic pigmented stromal melanocytes (SM) were seen in the superficial stroma of endocervix. These cells were positive for Masson Fontana and negative for Perl's stain. S100 was positive on immunochemistry. Differential diagnosis of melanosis, lentigo, simplex and melanoma were considered. It has been suggested that melanoma of cervix arises from these stromal melanocytes (SM) emphasising a close follow-up of such cases.

## INTRODUCTION

Blue naevi are a distinct type of benign melanocytic lesions, usually composed of spindle-shaped, dendritic pigmented melanocytes. Although common in skin, they have been rarely reported in other locations like oral mucosa, esophagus, uterine cervix, vagina, prostate, spermatic cord and lymph nodes.<sup>(1)</sup> Cervical blue nevi are asymptomatic and are incidental findings in hysterectomy specimens from middle-aged women or rarely, in specimens obtained during more conservative diagnostic or therapeutic procedures (e.g. cone biopsy, curettage). The lesion is seldom detected clinically or colposcopically. However, it appears in most instances as a blue-black lesion in the posterior wall of the endocervix on gross pathologic examination.<sup>(1)</sup> We herein present a case of cervical blue nevus in a South Indian lady.

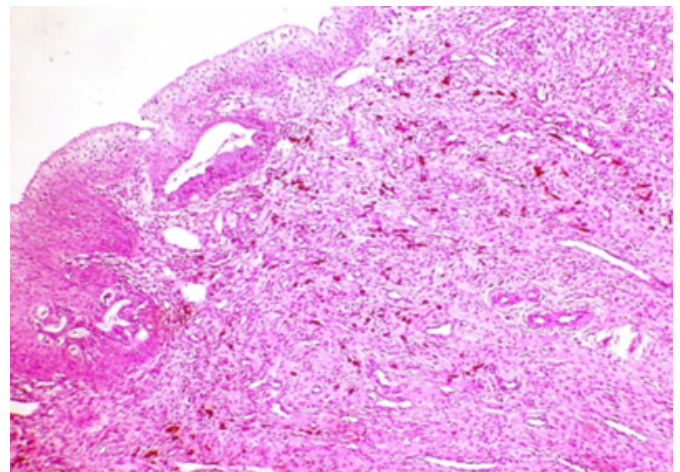
## CASE HISTORY

A 36 year old lady underwent hysterectomy for dysfunctional uterine bleeding and the specimen was sent for histopathological analysis. The cervix was unremarkable on gross examination. Light microscopy showed pigmented cells in the subepithelial stroma of the endocervix. The cells had oval nuclei and inconspicuous nucleoli; cytoplasm showed dendritic processes and was laden with brown pigment (Figures 1 & 2). These cells stained positive with Masson Fontana, negative with Perl's and bleached with hydrogen peroxide. Immunochemistry showed positivity with S100. No cytologic atypia or mitoses was seen. No increase in pigmentation or proliferation of basal

melanocytes was seen in the overlying endocervical epithelium which showed squamous metaplasia.

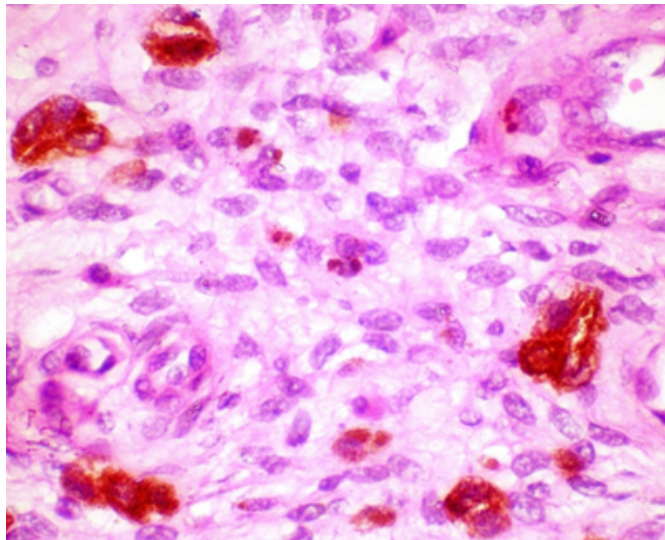
## Figure 1

Figure 1. Pigmented cells in the subepithelial cervical stroma (H & E, X 10)



**Figure 2**

Figure 2. Higher power to show the dendritic melanocytes (H & E, X 40)



The differential diagnosis of common blue nevus of the cervix includes pigmented lesions such as melanosis, lentiginous melanocytic lesions, cellular blue nevus, and malignant melanoma. Melanosis of the cervix, a rare lesion, is characterized by hyperpigmentation of the basal epithelium with or without accompanying basal melanocytes. In the present case no hyperpigmentation of the epithelium was noted; thus, melanosis was excluded. Lentiginous melanocytic lesions, extremely rare in the cervix, are characterized by proliferation of basal melanocytes. In our case no proliferation of basal melanocytes was present, so a lentiginous lesion was excluded.<sup>(1,2,3)</sup>

**DISCUSSION**

Blue nevi of the cervix are a rarity. The entity was first described by Hinselmann et al., in 1942. as “pigmented connective tissue cells in mucosa of the endocervical canal of women”.<sup>(2)</sup>

These lesions are now called “blue nevus of the uterine cervix”. As most descriptions come from case reports, their real incidence is hard to evaluate. In a few serial studies, blue nevi have been found in 0.12-1.9% of cases.<sup>(1)</sup> Uehara et al., had studied 486 uterine specimens from Japanese

women which included autopsy and surgical samples and found clusters of stromal melanocytes (SM) in as many as 8.9 % cases. These authors suggest racial differences in the prevalence of the nevi. Furthermore, they proposed the term “stromal melanocytic foci” as a more accurate description for this unusual histologic change as they believe the lesions are analogous to dermal melanocytosis rather than to cutaneous blue nevus. It had also been suggested that melanoma of cervix may originate from stromal melanocytosis (SM).<sup>(3)</sup> There are only a few case reports of pigmented lesions of cervix from India.<sup>(5,6,7,8)</sup> Deb et al., has described an incidental cervical blue nevus in a 38-year old lady from Delhi. A case of melanosis of cervical epithelium was described in a young woman from Chandigarh by Saikia et al., and a rare case of primary melanoma of cervix by Baruah et al.,<sup>(5,6,7,8)</sup>

The uterine cervix mucosa is normally devoid of melanocytes. For this reason, melanin containing lesions are very rare in this site. A few hypotheses concerning the histogenesis of cervical blue nevi have been postulated. The most widely accepted theory is that they originate from melanoblasts that aberrantly migrate from the neural crest to the cervix during embryogenesis. Irrespective of the theory of origin, all pigmented lesions of cervix should be evaluated to rule out malignancy and subjected to regular follow-up.

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