

Agminated blue Nevus : A case report

Mohamed S. El-Ansary *,
Abdulwahab S. Al-Fouzan **,
Hussein M. M Hassab-El-Naby ***

Introduction

A 9 year old Kuwaiti boy with asymptomatic light brown macular area studded by a group of numerous dark bluish nodules on the mid of his left sole, when biopsied it revealed to be a very rare case of nodular type of agminated blue Nevus.

When this patient was first seen, he was complaining of an asymptomatic colored lesion over his left sole since birth.

On examination a light brown macular area is seen on the mid of the left sole studded by a group of numerous dark bluish nodules of variable size. The size of the lesion is 3 cm wide & 6 cm long. The nodules were from 1 mm to the size of 6 mm in diameter. (Figure 1).

They were not tender, non-compressible, their color did not change on pressure and were freely mobile, not attached to the underlying structures. The patient was in good health and there was no past history of similar conditions, the lesion did not change since birth.

Blue nevus, Angiokeratoma circumscriptum and hemangioma were thought of as provisional clinical diagnosis.

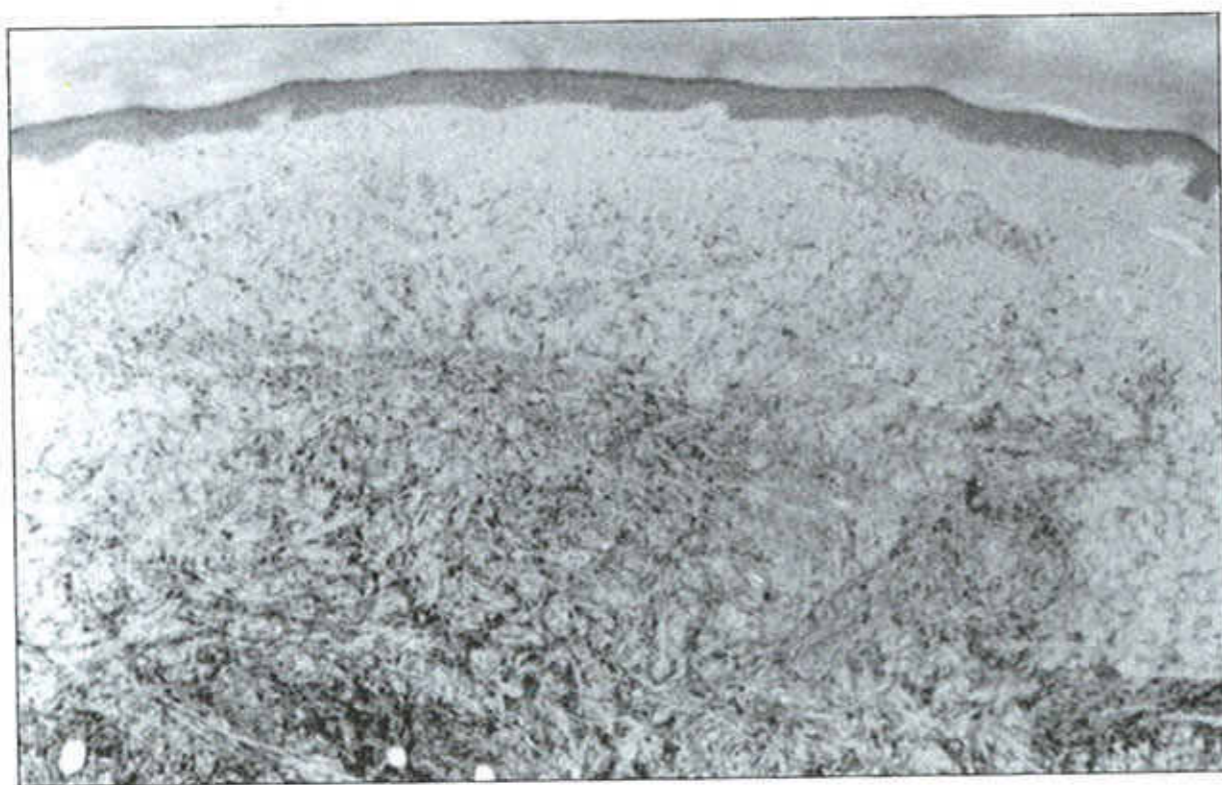


Figure -1 Left sole ñ Dark nodules on a light brown Macular area

Histopathology:

A biopsy was taken from one of the nodules, it showed the mid dermis occupied by melanin laden cells.

Two types of cells are seen, spindle shaped melanocytes arranged in bundles and rounded and polygonal melanophages, collagen bundles are thickened. (Figure 2).

The spindle shaped cells are loaded with melanin and have dendrites. The melanophages have pale nuclei and are full of melanin. In-between, collagen bundles are thickened. (Figure 3).

This histopathological picture is typical for the common variety of blue nevus.

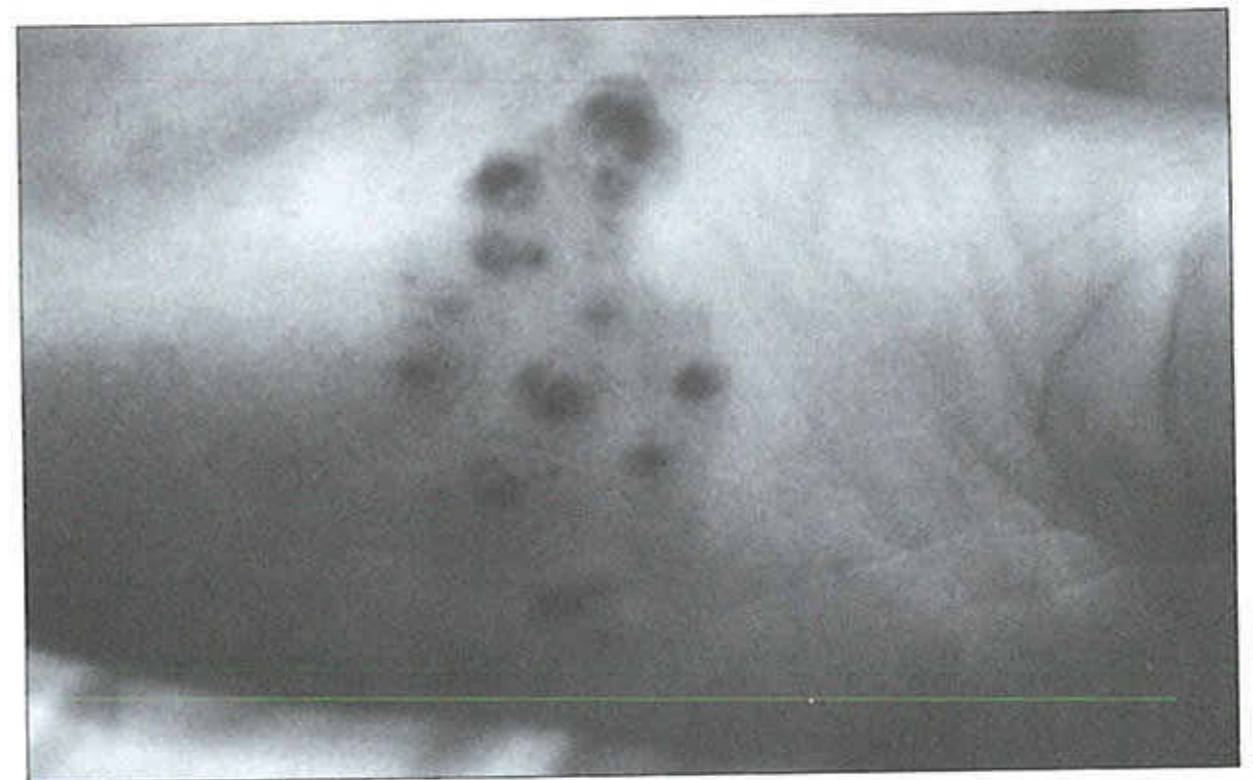


Figure -2 Melanophages, Spindle shaped melanocytes and thickened collagen within the mid-dermis.

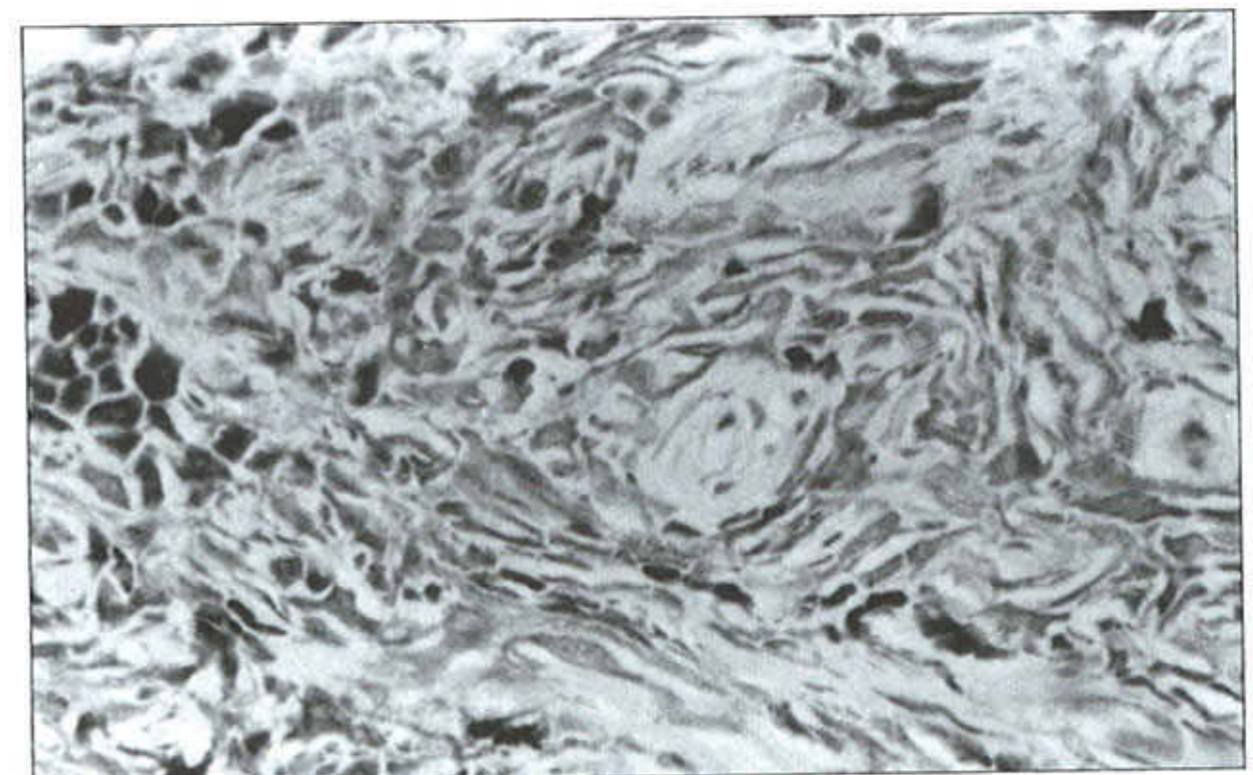


Figure -3 Spindle shaped cells with dendrites and Macrophages with pale nuclei. Both are loaded with melanin with Thickened collagen bundles in between.

* Hadi Hospital ñ Kuwait.

** Kuwait Dermatology Center ñ Kuwait.

***Dermatology Dept.-Al-Azhar university ñ Cairo.- Egypt.

Discussion

Blue nevi have three clinical and pathological types, common, cellular and combined. ⁽¹⁾

1. Common blue nevi are usually acquired, solitary, rarely larger than 10mm. and about half of the cases are present on the dorsa of the hands and feet.

Histologically, there are dendritic pigmented melanocytes in the dermis grouped in bundles admixed with melanophages.

2. Cellular blue nevi are larger in size often 1-3 cm in diameter and have predilection to the back region or the buttocks.

Histologically, they have features of common blue nevus plus cellular bands composed of spindle shaped cells with oval nuclei and pale cytoplasm with little or no melanin.

3. Combined blue nevi refer to blue nevus plus another distinct population of nevus cells whether conventional nevus cells or epithelioid (as in spitz nevus).

Exceptionally and rarely the three types of blue nevi may appear in an agminated pattern. This case is an agminated blue nevus or sometimes is called plaque type blue nevus. Clinically, this entity is characterized by the presence of multiple blue nevi

grouped in circumscribed area usually not exceeding 10 cm in diameter.

Since the first report by Upshaw in 1947 only very few cases were reported. (Table 1)⁽²⁻¹⁰⁾. Agminated blue nevi may be congenital or acquired, males are twice affected as females ⁽¹¹⁾.

The skin between the papules may or may not be discolored. The lesion is usually uniform and has a pale brown background dotted with small, dark brown macules and papules ⁽¹²⁾. The lesions were asymptomatic in all patients with no significant change in their size, color or texture. Because of its rarity, no definite prognosis can be given. ⁽²⁻¹⁰⁾ As in other types of blue nevi, the pathogenesis of agminated blue nevi is unknown, although it is thought to represent ectopic accumulations of Melanin producing melanocytes in the dermis during their migration from the neural crest to the epidermis...an origin from melanocytes in the hair follicles has been also proposed. ⁽¹⁾

All the cases reported of agminated blue nevi were papular but this

reported case is the first nodular form of agminated blue nevus among 12 cases published in previous 9 reports.

Reported cases of agminated blue Nevus (Table 1)

Source	Case No.	Age	Sex	Location	Size/Cm	Onset
Upshaw et al (1947)	1	9	M	Thorax	3.6x17	Birth
Dorsey & Montgomery (1954)	2	-	-	-	>6	-
		-	-	-	>6	-
Pittman & Fisher (1974)	1	18	M	Left leg	6x8	Birth
Shenfield & Maize (1980)	1	56	M	Epigastrium	2.5x5.6	25Y
Hendricks (1981)	1	14	M	Upper sternum	6x7	10Y
Tuthill et al (1982)	1	18	F	Left infraclavicular	9.5x10	8Y
Ishibashi et al (1990)	3	25	F	Left chest wall	4x15	Birth
		16	F	Left thigh	2x8	Infancy
		15	M	Right shoulder	2x7	Birth
Velez et al (1993)	1	57	M	Right shoulder	1x3	Birth
Guang-Hsing & Cheng-wei (1994)	1	22	M	Right cheek	6x9	Birth
Present case	1	9	M	Left sole	3x6	Birth

References

- 1) Lever WF, Schaumburg-Lever G. *Histopathology of the skin*. 7th ed. Philadelphia: JB Lippincott, 1990:777-80.
- 2) Upshaw BY, Ghormley RK, Montgomery H: Extensive blue nevus of Jadassohn-Tieche. *Surgery* 1947;22:761-765.
- 3) Dorsey CS, Montgomery H: Blue nevus and its distinction from Mongolian blue spot and the nevus of Ota. *J Invest Dermatol* 1954;22:225-236.
- 4) Pittman JL, Fisher BK: Plaque-type blue nevus. *Arch Dermatol* 1976;112:1127-1128.
- 5) Shenfield HT, Maize JC: Multiple and agminated blue nevi: *J Dermatol Surg Oncol* 1980;6:725-728.
- 6) Hendricks WM: Eruptive blue nevi. *J Am Acad Dermatol* 1981;4:50-53.
- 7) Tuthill RJ, Clark WH Jr, Levene A: Pilar neurocristic hamartoma Its relationship to blue nevus and equine melanotic disease. *Arch Dermatol* 1982;118:592-596.
- 8) Ishibashi A, Kamura K, Kukita A: Plaque-type blue nevus combined with lentigo (nevus spilus). *J Cutan Pathol* 1990;17:241-245.
- 9) Velez A, Del-Rio E, Martin-de-Hijas C., et al: Agminated BlueNevi: Case report and review of literature. *Dermatology* 1993; 186:144-148.
- 10) Guang-Hsiang H: Plaque-type blue nevus on the face: A variant of Ota's nevus: *J Am Acad Dermatol* 1994;30:849-851.
- 11) Knoell A, Nelson C, James W, et al: Familial multiple blue nevi: *J Am Acad Dermatol* 1998;39:322-325.
- 12) Betti R, Inselvini E, Crosti C.: Blue nevi and basal cell carcinoma within a speckled lentiginous nevus: *J Am Acad Dermatol* 1999;41:1039-1041.