

LETTER TO THE EDITOR

Evolution of pigmented Spitz naevi with starburst pattern during childhood

To the Editor,

Spitz naevi (SN) are benign melanocytic lesions typical of childhood/adolescence that can mimic melanoma on a clinical, dermoscopic and histopathologic level. Moreover, SN are often characterized by rapid growth and worrisome changes. Thus, their diagnosis and management may be challenging. The knowledge on prognosis and natural history of SN improved substantially in the last few years thanks to dermoscopy and a better understanding of clinic–pathologic correlations.¹

The aim of this study was to describe a new dermoscopic pattern that we found in a significant number of SN with starburst pattern that were monitored over time.

This retrospective observational study was conducted at two referral centres in Italy. Eligible cases were identified by searching our databases over a period of 9 years. Inclusion criteria were the clinical and/or histopathologic diagnosis of Spitz naevus and the availability of high-resolution dermoscopic images

at baseline and after follow-up (FUP). Cases lacking adequate clinical information were excluded.

Patients' age and sex, and duration of FUP were recorded. The dermoscopic images were assessed by three evaluators in consensus, with a feature scored as present when at least two of them were in agreement. The evaluators were asked to assess the global dermoscopic pattern of both baseline and FUP images. The selection of the dermoscopic patterns included in the evaluation was based on the available literature and on a preliminary experience on FUP of pigmented SN.^{2,3}

A total of 114 SN in patients aged from 6 months to 19 years (median age, 7.4 years) were included (60 females). The median FUP duration was 20 months. Of 114 SN, 88 (77.2%) were located on the extremities, 10 (8.8%) on the head and 16 (14%) on the trunk.

At baseline, 31 of the 114 SN (27.2%) exhibited a starburst pattern. Of these 31 lesions, 10 (32.3%) maintained this dermoscopic appearance after a median FUP of 10 months, while 21 (67.7%) after a median FUP of 29.2 months evolved in a quite repetitive pattern characterized by a tiny brown network at the periphery and a central black to grey hyperpigmented area with or without a superimposed superficial black network (Fig. 1).

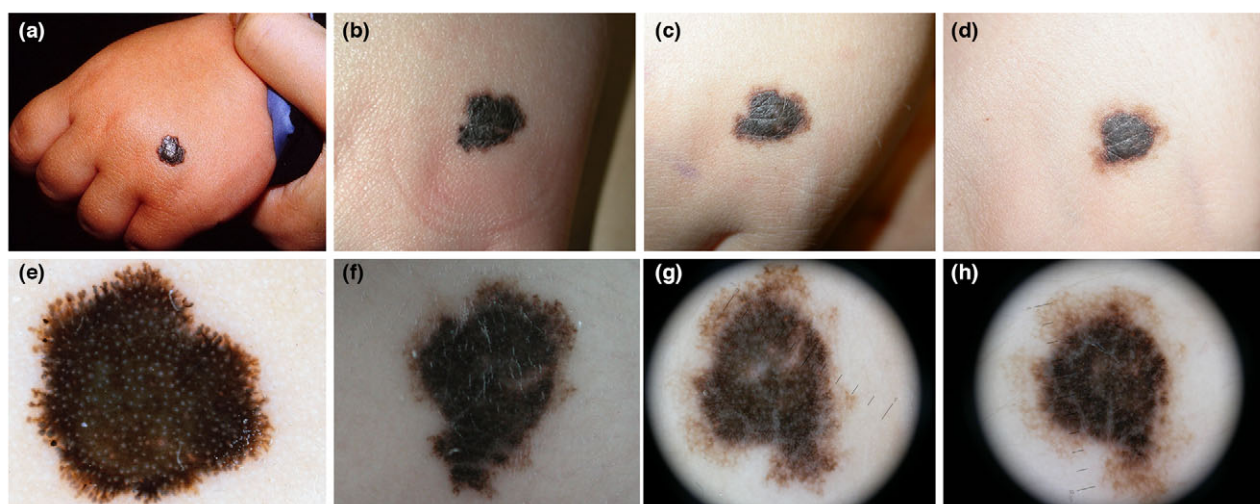



Figure 1 Clinical (a–d) and dermoscopic (e–h) features at baseline and follow-up of a SN arising on the hand of a 10-month-old boy. (a–e) At baseline, the lesion was dermoscopically characterized by a starburst pattern. (b–f) After 4 years of follow-up, a tiny brown network was visible at the periphery of a central black homogeneous area. (c–g) At age five, the peripheral network is more sharp and on focus. (g, h) At age nine, the lesion appears stable. Dermoscopically, a central, black, reticular, hyperpigmented area was surrounded by remnants of a delicate brown network (stardust pattern).

Our finding suggests that pigmented SN exhibiting a starburst pattern at onset tend to change into a specific pattern not yet described. Our group previously demonstrated that the majority of pigmented and non-pigmented Spitz naevi tend to disappear over time. However, it is still not clear what changes in the baseline dermoscopic pattern become visible in SN before final involution. The pattern we identified in 67.7% of SN with baseline starburst pattern is characterized by a central, black to grey, structureless or reticular, hyperpigmented area and remnants of a delicate brown network at the periphery. The analytic description of this pattern might be summarized by the metaphoric term 'stardust pattern', which can be useful to recall the most common evolution of the 'starburst' pattern.

The recognition of this pattern as one of the physiological evolutions of pigmented Spitz naevi can help reduce the need of biopsy of this type of lesions, especially when dealing with prepubertal children.

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