

## Case Report

### The ‘human tail’ causing tethered cervical cord

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**Study design:** Human tails continue to elicit curiosity till the present times. A unique case of human cervical dysraphism is described.

**Objectives:** In addition to the cosmetic stigma, these cutaneous markers provide a lead to reach the underlying spinal dysraphic states.

**Setting:** Plains of North India.

**Methods:** A case of human tail at the neck region is presented, whose cutaneous deformity lead the clinicians to his underlying spinal dysraphic state.

**Results:** The final outcome of the patient was favorable.

**Conclusion:** Such markers should always be looked upon with a caution. The present report describes a unique case of a human neck tail, a causing cervical cord tethering.

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**Keywords:** human tail; tethered cord; neck

## Introduction

As both the skin and nervous system are intimately related by their common ectodermal origin, their anomalies are also expected to be associated. Cutaneous markers overlying the dysraphic spine include dimple with a sinus, a hemangioma, a dark melanotic area, a hairy patch, a lipoma or a scar.

Since 1964, 937 patients of spinal dysraphism were operated at our institution. Detethering of spinal cord was performed for 243 patients, of which five patients had cervical tethered cord, while one patient had a tethered brain-stem.<sup>1</sup> Cutaneous markers for these tethered cervical cords included myelomeningocele ( $n=2$ ), a sinus tract ( $n=1$ ), a tail in the neck ( $n=1$ ), while one patient had no external stigmata.

In the present communication, we describe a unique case of a human neck tail, causing cervical cord tethering.

## Case report

A 11-month-old male child born after uneventful antenatal history to a mother of 25 years of age, presented with a complaint of a tail-like structure at the back of neck, since birth. The structure was hair-laden and had grown proportionately with the child's growth (Figure 1a and b). There was no neurological deficit and no other associated congenital anomaly. The plain

radiograph revealed deficient posterior lamina of fourth fifth and sixth cervical vertebra. The three-dimensional computerized tomography showed similar defects (Figure 2a and b). The magnetic resonance imaging (MRI) scan revealed tethered cord at the level of fifth cervical vertebra, by the structure extending outside the skin (Figure 2c and d). The child underwent exploration via posterior midline approach. The ‘tail’ was extending to the cervical cord and tethering it (Figure 3). The structure was detached near the cord and wound repaired. Postoperatively, the child had an eventless recovery and follow-up MRI scans showed satisfactory de-tethering.

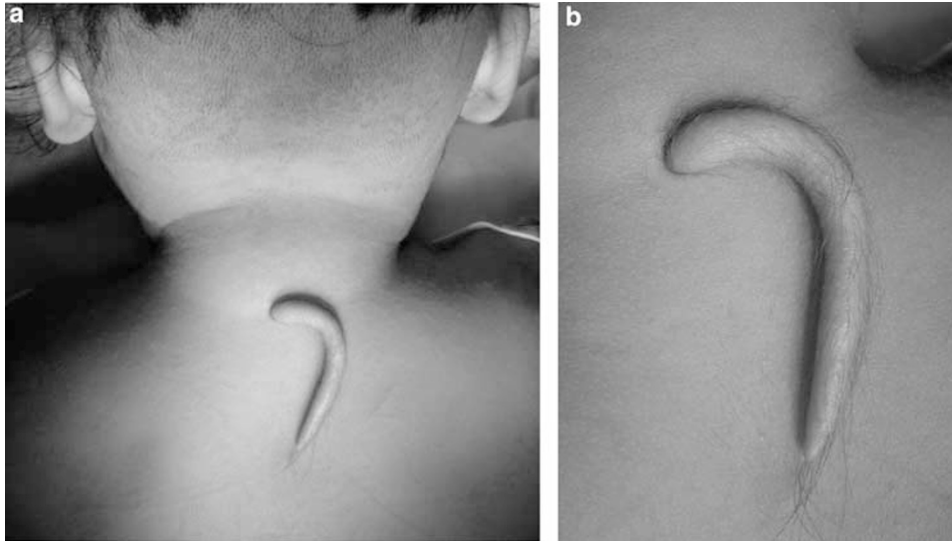
## Discussion

Dysraphic states of cervical spine and its tethered state is a rare entity.<sup>2,3</sup> The cutaneous stigmata of cervical spine dysraphism may include a sinus tract<sup>4</sup> or myelomeningocele (a boggy swelling at the back of neck).<sup>5,6</sup> There may not be any cutaneous marker indicating underlying dysraphic state.<sup>7</sup>

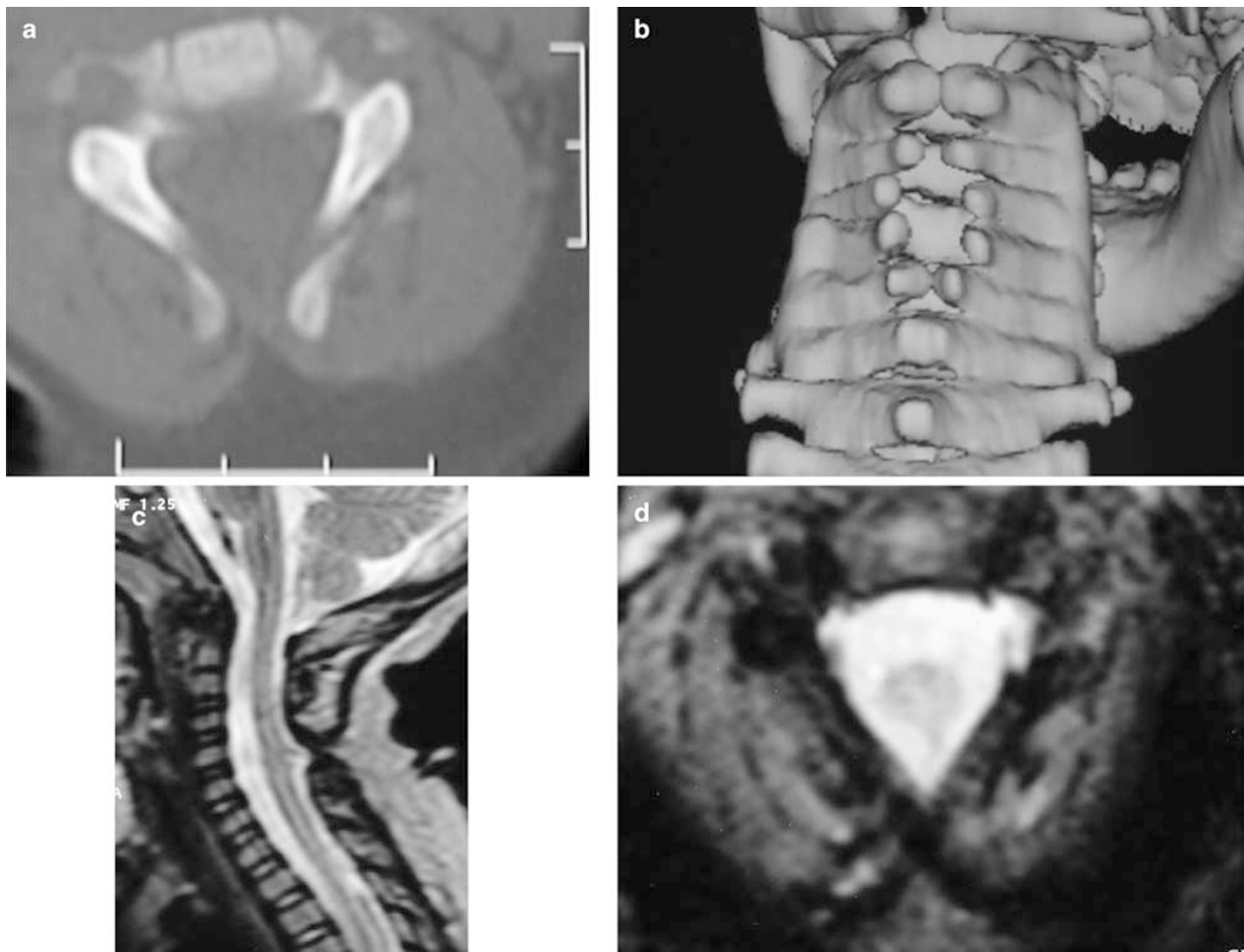
The present case demonstrates a unique cutaneous marker in the form of a hairy tail at the back of neck causing tethered cord. All such midline cutaneous markers probably warrant a plain radiographic survey, to rule out dysraphic states of spine. This radiological investigation is available for even deprived sections of the mankind.

Numerous reports describing lower back tail-like appendages exist in the literature. A few cases describe

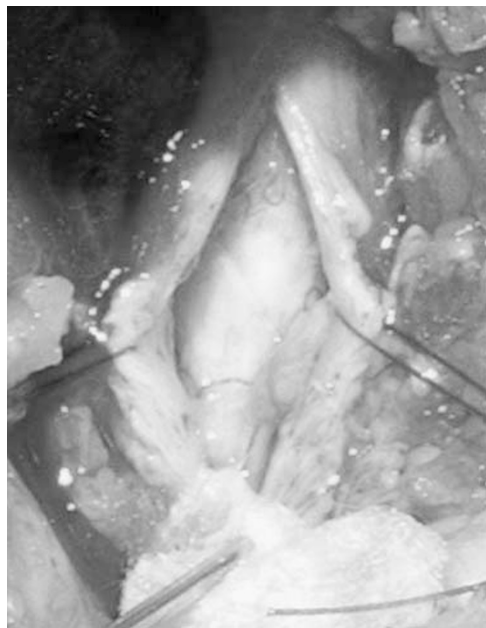
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**Figure 1** (a, b) Clinical picture of the child's back of neck showing a hairy tail-like structure



**Figure 2** (a) Axial section of C5 vertebra, showing deficient posterior lamina. (b) Reconstructed CT scan image, showing cervical spine dysraphism. (c, d) Sagittal and axial sections of MRI scan showing, tethered cervical cord, because of neck tail



**Figure 3** Intra-operative picture of tail-like structure attached at cervical cord, responsible for its tethering

such a tail leading to tethering of the cord.<sup>8,9</sup> All reported cases describe such culprit tails in the lower back.<sup>8,9</sup> An attempt to differentiate 'true tails' from 'tail-like structures' has been made<sup>10</sup> and the differentiation seems to be holding anthropological relevance only. Even when 'true tails' have been labeled as benign stigmata,<sup>11</sup> reports continue to ponder a co-existence of 'true tail' and 'tethered cord', questioning the innocence of these 'benign true tails'.<sup>12</sup> Before embarking upon cosmetic correction of any cutaneous tail-like structures, whether 'true or false', an investigation with MRI scan is mandatory, so as to determine the need for operation to prevent neurologic deterioration due to a tethered cord.<sup>9</sup> The pre-natal diagnosis of such a cutaneous stigma may be possible ultrasonographically,<sup>13</sup> inviting a word of caution and a necessary MRI scan after birth, as MRI remains the investigation of choice to evaluate any case of spinal dysraphism. The surgical outcome of these patients is better than for lower neural tube defects.<sup>14</sup>

## Conclusion

Even in the present times, the world continues to witness grotesque forms of spinal dysraphic states. We believe that all forms of dorsal midline cutaneous stigmata should be investigated, however benign these may look. A tail may be a rare presentation of cervical dysraphic state and may cause tethered cord at that level.

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