

Abdominal Telangiectasia in Newborns: A Comprehensive Retrospective Review of Clinical Cases

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Introduction

TATN is a benign, self-limiting condition characterized by symmetric deep red telangiectatic patches on the abdomen, typically in the periumbilical region [1-3].

Case Presentation

A retrospective case series was conducted in 2023 at the Pediatric Dermatology Clinic of Sant'Orsola Malpighi University Hospital. Written parental consent for the scientific use of images was obtained, and the study adhered to the Declaration of Helsinki.

Five term newborns with uncomplicated pregnancies and deliveries were identified with transient abdominal telangiectasia of the newborn (TATN). Two were males and 3 were females, with a median diagnosis age of 16 days

(range: 8–30 days). Physical examination showed radial purplish telangiectasia in a “butterfly wing” pattern on the abdomen (Figure 1A–C). Dermoscopy, at ×10 magnification, revealed bright red, irregularly branched vessels against an unstructured background (Figure 1D).

None of the patients had a family history of complicated trauma or delivery, and abdominal ultrasonography revealed no abnormality. Associated findings included high-flow vascular malformation (HI-MAG) in patient 1, telangiectatic cutis marmorata in patient 2, elongated APTT in patient 3, capillary malformation in patient 4, and no clinical finding in patient 5. The condition resolved spontaneously in all cases, with an average resolution time of 40.8 days (Table 1).

In our series, telangiectasias resolved spontaneously within an average of 40.8 days, confirming TATN's benign nature, with associated findings like vascular malformations or elongated APTT likely being coincidental. Although

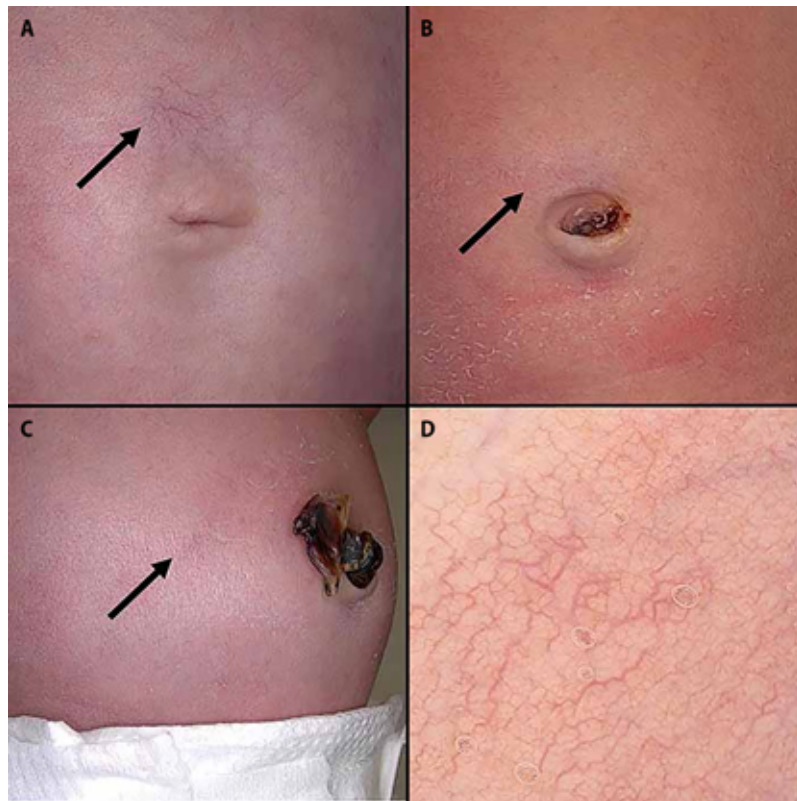


Figure 1. (A-C) Patches of purplish telangiectasia on the abdomen in the periumbilical region (black arrow). (D) Dermoscopy, at $\times 10$ magnification, revealed bright red, irregularly branched vessels against an unstructured background.

Table 1. Patient Characteristics and Associated Findings.

Patient number	Age in days at diagnosis	Sex	Location	Time of resolution from the diagnosis	Other associated findings	Ecographic findings
1	12 days	M	Abdominal in the periumbilical region.	47 days	IHMAG	No clinical findings
2	12 days	F	Abdominal in the periumbilical region.	33 days	Cutis marmorata	No clinical findings
3	18 days	M	Abdominal in the periumbilical region.	31 days	APTT elongated	No Clinical findings
4	8 days	F	Abdominal in the periumbilical region.	44 days	Capillary malformation	No clinical findings
5	30 days	F	Abdominal in the periumbilical region.	49 days	No clinical findings	No clinical findings

abdominal ultrasonography revealed no abnormality in our cases, careful clinical evaluation is essential to rule out underlying conditions.

Juzot et al. reported TATN in association with Hirschsprung disease and rhabdomyosarcoma, highlighting the need for vigilance. However, no intra-abdominal or pelvic mass was identified in our cohort, reinforcing that TATN is not linked to significant abnormalities [1].

We hypothesize that transient increases in intra-abdominal pressure, as suggested in the literature, could contribute to the development of TATN [1-3]. Abdominal distension in newborns typically arises from non-pathological factors, such as air swallowed during feeding or crying due to immature intestinal motor control, gas from the developing microbiota adapting to breast milk or formula, and meconium accumulation in the first days of life. These transient

conditions can raise intra-abdominal pressure, impairing local venous return and causing telangiectasias through congestion of superficial cutaneous vessels. The periumbilical area is particularly prone to this phenomenon due to its rich vascular network and connection to the portal venous system via paraumbilical veins.

Conclusion

TATN is a benign condition, and our findings confirm its transient nature and the absence of significant pathology, as abdominal ultrasonography consistently showed normal results [1-3]. While vascular malformations were noted in some cases, they do not appear directly related to TATN. Reports by Juzot et al. of TATN in patients with Hirschsprung disease and rhabdomyosarcoma underscore the importance of clinical vigilance and thorough evaluation [1].

However, in our series, TATN was confirmed as a distinct, benign phenomenon.

TATN may be underdiagnosed due to its asymptomatic, self-limiting nature, and larger cohort studies are needed to better understand its pathophysiology, confirm its benign nature, and explore any subtle associations.

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