



GENETICS AND GENODERMATOSES

# MONILETHRIX TREATED WITH 5% TOPICAL MINOXIDIL: A CASE REPORT AND A REVIEW OF LITERATURE

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**BACKGROUND:** Monilethrix is a hair shaft dysplasia presenting with intermittent constrictions along the hair shaft, and clinically as dry, brittle, fragile, and lusterless hair. Worldwide, the incidence of Monilethrix is not known. According to the Philippine Dermatological Society Health Information Systems (PDSHIS), there has been no reported case of Monilethrix in the Philippines from year 2009-2018.

**OBSERVATION:** An 11 year old male, born to a non-consanguineous marriage, presented with an 8 year history of diffuse hypotrichosis, and multiple well-defined skin-colored keratotic papules all over the scalp. The patient has normal nails, and follicular hyperkeratosis over his bilateral knees. Monilethrix was confirmed on trichoscopy and light microscopy of scalp hair, which showed elliptical nodes with intermittent constrictions along the hair shaft. Trichoscopy and light microscopy of his eyelashes, eyebrows and forearm hair were normal, and curling of the hair shaft was not observed on histologic sections. KOH smear was negative, and laboratory examination showed normal blood counts and liver enzymes. Mental retardation, juvenile cataracts and dental defects were excluded by neurology, ophthalmology and dental services. He was started with 5% minoxidil, applied twice per day with once a month follow ups. Evaluation was done through photographs of the same areas with a before and after comparison. Improved hair density and pigmentation of hair shaft was noted after 1 month of treatment.

**KEY MESSAGE:** Monilethrix is a rare hair defect presenting with hypotrichosis, typically during childhood, which may cause a significant psychosocial impact. Associated features include hyperkeratotic papules, and in some cases, juvenile cataracts, neurologic and dental defects. Diagnosis is done clinically, by trichoscopy and light microscopy. Treatment with 5% Minoxidil is effective in improving hair density and pigmentation after 1 month of twice daily treatment. Most cases, however, are persistent.

