

Variation in Lower Leg Growth With Alternate-Day Steroid Treatment

The growth of a boy with Crohn's disease was studied intensively over 4 weeks. Lower leg length was measured with a knemometer (mean of four measurements) every day (except for weekends). The standing height was measured weekly. The subject was 11.6 years old and had had the disease for 5 years. He was on a regimen of 1 g of sulfasalazine twice daily and 7.5 mg soluble prednisolone on alternate days (taken after the measurement session, which was 1 hour after arriving on the ward). In the fourth week the steroid was put

"out of phase" by 1 day, to see if the pattern of growth reversed.

A clear distribution of leg-length gains was shown. Despite some overlap, a highly significant difference was demonstrated between the means of the steroid days and those of the steroid abstinence days. Growth on the days of steroid ingestion was fractionally below zero, but the gain on the days the patient was off steroid averaged 0.5 mm ($t = 3.6$). Soft tissue changes at the knee and heel were measured by ultrasound, but no consistent change was noted.

Wales JKH, Milner RDG. *Arch Dis Child* 1988;63:981-983.

Editor's comment—*This report is important in showing exactly what the knemometer does best: measuring short-term growth changes in the context of physiologic or pharmacologic investigations of the growth plate, or of factors affecting it. It provides direct evidence of the expected inhibiting effect of high doses of steroid on growth, followed by catch-up as soon as the steroid is removed.*

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