Drugs fail to meet hormone targets in control of rare growth disorder

October 10 2013

Over a quarter of UK patients treated for growth hormone-producing tumours do not achieve 'safe' growth hormone (GH) levels, according to a 30 year UK multi-centre study of clinical management of the rare disease acromegaly. The findings by the Society for Endocrinology UK Acromegaly Register, published in the November issue of *Clinical Endocrinology*, show that drugs to control acromegaly often fail to bring the disease completely under control in routine clinical practice.

Acromegaly is caused by a benign, GH-producing tumour in the pituitary gland, which normally releases GH in a controlled daily rhythm. GH promotes the release of IGF-1, and together an excess of these two hormones gradually manifests the symptoms of acromegaly which can include an increase in the size of the hands and feet, thickening of the skin and a change in facial characteristics. Only when the tumour occurs before the end of puberty can this lead to an increase in height. Comorbidities include high blood pressure, diabetes and arthritis. High GH levels are associated with decreased life expectancy, and it has been suggested that IGF-1 also contributes to mortality risk, therefore 'control' of the disease aims to suppress GH and IGF-1 levels to a threshold that is accepted as safe (defined in this study as