Supraclavicular Fat Pads as the Chief Complaint of Cushing’s Syndrome

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We report on a case of a woman who sought medical assistance for bilateral supraclavicular fat pads due to Cushing’s syndrome. Our case underscores the importance of recognizing the cosmetic manifestations of Cushing’s syndrome as a chief complaint and a trigger for diagnosis.

A 62-year-old, previously healthy woman, visited our office with the chief complaint of masses at the bilateral supraclavicular fossae (Figure 1). She noticed that the mass had gradually grown over the previous few months. She also complained of a general fatigue that had lasted for several months. She denied any pain or tenderness around the mass, dyspnea, recent weight gain, or fat accumulation at other sites. She had never been diagnosed as obese at previous health checks. At her first hospital visit, her height was 159 cm, body weight was 60.5 kg, and body mass index (BMI) was 23.9 kg/m². Physical examinations revealed non-tender, symmetric, soft lumps filling the supraclavicular fossae, and bipedal edema. Careful examination revealed mild fat accumulation at the nuchal area to the bilateral shoulder, which suggested a “buffalo hump”; however, “moon face” was not observed. Laboratory examination revealed elevated serum cortisol at rest and 24-hour urinary free cortisol and loss of diurnal variation of serum cortisol with low serum

Figure 1.
ACTH. A 1 mg dexamethasone suppression test identified failure in the appropriate suppression of cortisol secretion. A computed tomography scan with contrast material showed adipose tissue at the supraclavicular fossae and a 25-mm-diameter mass at the left adrenal gland. Scintigraphy with ¹³¹I-adosterol showed strong collection at the left adrenal gland (Figure 2). The patient was diagnosed with Cushing’s syndrome due to the left adrenal adenoma and underwent laparoscopic adrenalectomy. After the operation, her fatigue improved and the supraclavicular fat pads gradually diminished.

Cushing’s syndrome, a syndrome caused by glucocorticoid excess due to various etiologies, frequently causes various cosmetic manifestations, including centripetal obesity, facial plethora, acne, oily skin, purplish abdominal striate, edema, and proximal muscular atrophy. Glucocorticoid excess is thought to cause fat accumulation at the face, neck, and abdomen by downregulating adenosine monophosphate-activated protein kinase, a key enzyme that regulates lipid and carbohydrate metabolism.¹ Enlarged fat pads filling the supraclavicular fossae (so-called “supraclavicular fat pads”) are included in the signs of centripetal obesity due to the fat accumulation at the trunk. This is reported to be the most specific sign of Cushing’s syndrome,² although it is not as well known as the “moon face” or “buffalo hump.” In our case, the patient sought medical attention for the supraclavicular fat pads, not for other symptoms or signs such as fatigue, buffalo hump, moon face, or centripetal obesity. This case suggests that clinicians should recognize that various cosmetic manifestations of Cushing’s syndrome can be a chief complaint of the disease and they should be aware of this early diagnosis opportunity.

Conflicts of interest:
On behalf of all authors, the corresponding author states that there are no conflicts of interest.

References