

Hypertrichosis in a gibbon (*Hylobates muelleri*)

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A case of facial hypertrichosis in a museum specimen of a Bornean gibbon (*Hylobates muelleri*) is described. Apparently, hypertrichosis has not previously been reported to occur in non-human primates. Similar pathological conditions are known to occur in humans, but it is unknown whether any of the numerous forms of human hypertrichosis is equivalent to this case in gibbons.

Thomas Geissmann

Anthropological Institute, University Zürich-Irchel, Zürich, Switzerland

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Thomas Geissmann, Anthropological Institute, University Zürich-Irchel, Winterthurerstrasse 190, CH - 8057 Zürich, Switzerland

Introduction

In humans, numerous forms of excessive hair growth (hypertrichosis) of widely varying aetiology have been described, many of which occur preferentially in the facial area [1-6, 18]. Such conditions are not mentioned in any of the reviews of pathology of non-human primates considered here [7-9, 11, 13-16] and may not have been recorded previously for non-human primates. In the present report, a case of facial hypertrichosis in a Bornean or Mueller's gibbon (*Hylobates muelleri*) is described and compared with similar pathological conditions in humans.

Material and methods

The specimen is kept at the Field Museum of Natural History, Chicago (FMNH), and consists of a female skin and skull, FMNH No. 88565 (field number 8c). According to the museum tag, the animal was collected in "Sarawak, Fourth Division, Usun Apau Padeng", at an altitude of 3400' (1036.3 m). Date: 4 December 1955, Collector: T.A. Chavasse. Usun Apau is situated in northern Kalimantan (East Malaysia); the U.S. Board on Geographic Names [17] reports its coordinates as 2°55'N, 114°40'E.

Two male skins collected on the same date and at the same locality were also inspected at the Field Museum (FMNH No. 88563, and FMNH No. 88564). In their fur coloration, these gibbons largely correspond to the subspecies *H. muelleri funereus* [10].

The present author is familiar with the normal variability of facial hair in *H. muelleri* both from observations on captive animals at the zoos of Banham, Paignton, and Twycross in England, and

Cottbus, Dortmund, Münster, Rostock, and Schwerin in Germany, and from examination of numerous museum specimens at the British Museum of Natural History (London), the Muséum National d'Histoire Naturelle (Paris), the Field Museum of Natural History (Chicago), and the American Museum of Natural History (New York). Zoo animals and museum specimens of all other gibbon species were also examined at the institutions mentioned above and in additional museums and zoos.

For comparison of the present findings with various conditions of excessive hair growth known in humans, the terminology published previously [3] is used throughout this paper.

Results

The study animal (FMNH 88565) can be described as follows: Back, distal lower arms and distal lower legs light brown with a distinct yellowish tinge. Ventral side, upper arms and upper legs blackish brown. Head with black cap and a yellowish band across the forehead (in many other Mueller's gibbons, this band is more whitish in coloration). The fully erupted teeth indicate that the animal was adult when collected.

Figure 1 shows a frontal view of the specimen's face. The area above the eyes is completely covered with long black hairs. Below the eyes, the face is almost completely covered with yellowish-white fur; only on parts of the nasal ridge can the bare skin be seen.

No similar development of facial hair has been seen among the several hundreds of gibbons inspected by the present author. The specimens surveyed include the two skins from the same locality

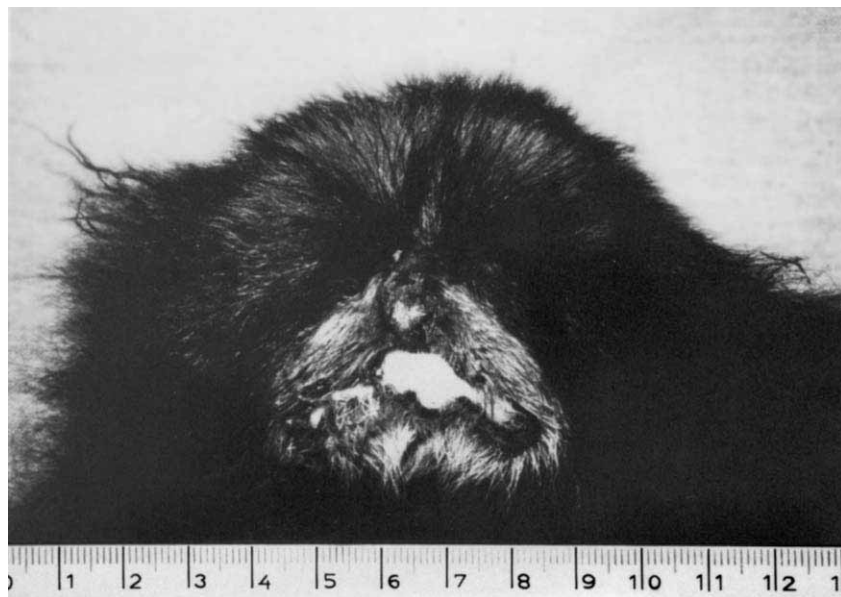


Fig. 1. Skin of adult female *Hylobates muelleri funereus* (FMNH 88556) from Sarawak, showing facial hypertrichosis.

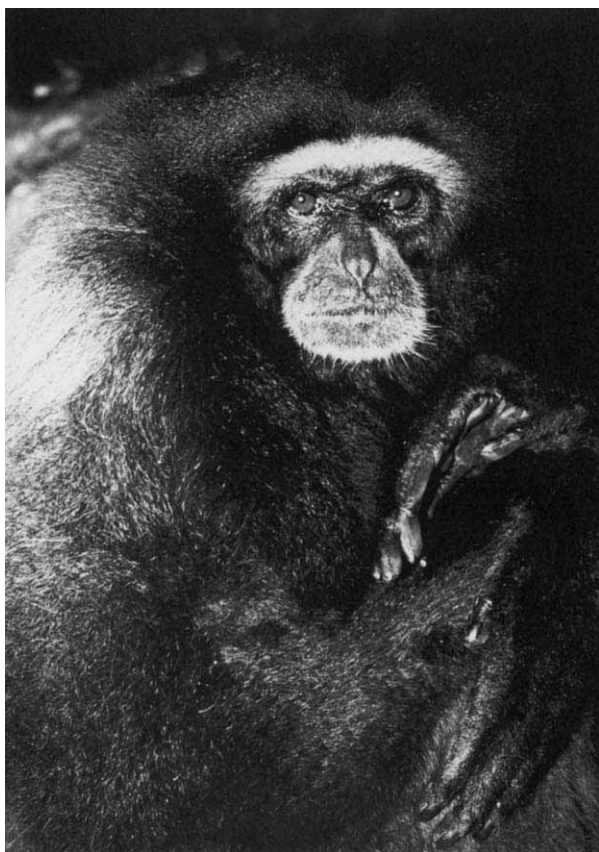


Fig. 2. Adult male *H. muelleri funereus* ("Jacques") from Sarawak, showing normal hair growth in the facial area (Banham Zoo, England, 14 October 1988).

as the study animal. The typical pattern of the facial hairs in *H. muelleri* is shown in Figure 2. Here, the facial area is easily distinguished by the few, short hairs present and the large amount of bare skin it exhibits.

Discussion

In many primates, the facial areas bordering the eyes, nose and mouth are only sparsely haired; hominoid primates (including gibbons) in particular exhibit large facial areas in which hairs are small and do not cover the skin [12].

The female gibbon described in this study clearly shows excessive growth of hair in the facial area. Because the amount of facial hair is not known to show sex-specific differences in *H. muelleri*, the pattern observed in the study animal would be equally abnormal if it was a male. Therefore, the excessive growth of hair in this animal was probably not androgen-induced, in contrast to the condition known as hirsutism in man [1, 3].

Various other forms of excessive hair growth known in human subjects have been described [3–6, 18]. None of these descriptions perfectly matches the condition observed in the gibbon reported here. Congenital and acquired hypertrichosis lanuginosa are sometimes restricted to the facial area, but may differ from the condition observed here, because lanugo is described as fine, silky hair, whereas the excessive facial hair of the study animal is of relatively coarse texture and does not contrast in this respect with the surrounding fur.

Universal hypertrichosis describes a form of human hypertrichosis in which the hair pattern is normal but in any site the hairs are larger and coarser than usual. In contrast to this condition, the gibbon examined here apparently does not show any excessive hair growth outside the facial area. Interestingly, a particularly conspicuous growth of the eyebrows may occur in universal hypertrichosis [3]. Similarly, the hypertrichotic gibbon has rich, dense black fur in the area between the light band on the forehead and the eyes, whereas only a few long black hairs are found there in normal Mueller's gibbons (see Fig. 2) and in most other gibbon species. Hairs are whitish and distinctly shorter in all other areas of the study animal's face.

Excessive hair growth in a sharply circumscribed area known as naevoid hypertrichosis in humans is most certainly different from the case under study here, because it appears to be unlikely that a naevus would cover the whole facial area.

Symptomatic hypertrichosis may occur as a sequel to or a manifestation of certain pathological states [3, 5, 6, 18], but no evidence of such a state is available for the gibbon reported here.

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