of ultrasonic extracts with acetic acid yielded serologically active material only when the extracts were prepared from young cocci. With streptococci of Types 3 and 13 in the mucoid phase, however, the first precipitation with acetic acid yielded active material from extracts both of young and overnight cultures. Further purification led finally to fractions where serologically active substance was demonstrable only in those derived from young cultures.

The result of these experiments is in favour of the assumption that fully capsulated young cultures of hæmolytic streptococci provide a better antigen than overnight cultures owing to their larger content of unaltered type-specific antigen. However, since the disintegration of streptococci by ultrasonic vibrations liberates serologically active material not only from the fully capsulated cocci, but also from those possessing no demonstrable capsule, these observations, though very suggestive, cannot be taken as conclusive proof that the type-specific antigen of streptococci is situated only in the capsule.

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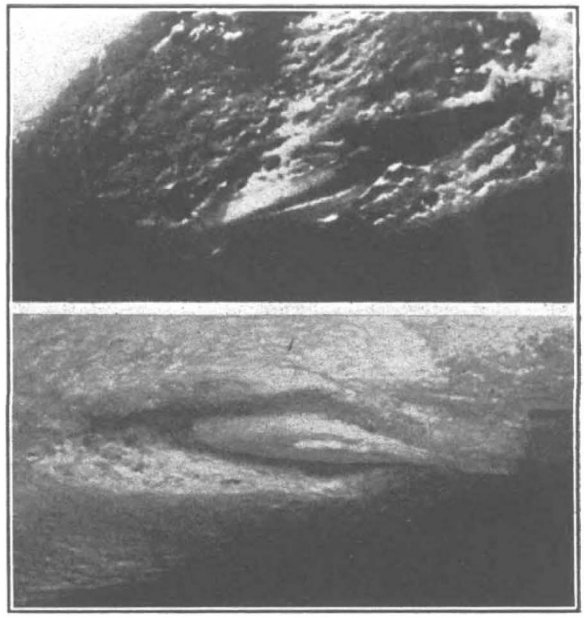
Upper Canine Teeth in the Indian Antelope (*Antilope cervicapra*)

UPPER canine teeth do not persist in either sex throughout the Bovidæ, but the occurrence of these teeth even in young animals at any stage of development has seldom been recorded. Regarding the antelopes, Forsyth Major in 1904[1] stated that "deciduous upper canines have not often been recorded. . . . I can find only five writers who mention them". He himself added notes upon their presence in five species, mostly in very young or fœtal individuals, and came to the conclusion "that calcified rudimentary milk-canines will be found to be normally present in all fœtal and most very young Antelopes, and that it is owing to the scarcity of fœtal and very young skulls in our Museums that they have not been observed more frequently" (p. 422).

At various times I have received from the Park of the Zoological Society of Scotland the bodies of three Indian antelopes or black buck (*Antilope cervicapra*) which have died at or within a few days of birth. In one individual (1937. 15. 21), three days old, rudimentary upper canines were present, but were lost during the process of macerating the skull; in a second (1937. 15. 2), which died just after birth, well-formed and definitely edged open alveoli are present, and although no teeth were seen the alveoli indicate that rudiments must have existed. In the prepared skull of the third specimen (1940. 8), one day old, no alveolus was visible, but dissection revealed the presence in each jaw of a rudimentary canine, 4 mm. long, lying almost parallel to the free edge of the maxilla, and showing in median section a large pulp cavity (see accompanying figure). There is only one record of the presence of rudimentary upper canines in the Indian antelope, by Nehring[2], who, in parenthesis, remarks that in the upper jaw prepared by him from a young individual which died in a zoological garden, two well-developed canine teeth were present.



DISSECTIONS SHOWING RUDIMENTARY UPPER CANINE TEETH OF THE INDIAN ANTELOPE (× 7·5). ABOVE, LEFT JAW, TOOTH IN MEDIAN SECTION; BELOW, RIGHT JAW, SAME SKULL, EXTERNAL ASPECT OF TOOTH.

The result of the examination of three additional skulls of the Indian antelope suggests that in that species rudimentary upper canines may be present in all fœtal individuals, although they do not cut the gum and may scarcely reach the level of the surface of the maxilla. This evidence supports Major's belief that rudimentary canines will be found in all fœtal or very young antelopes. On the other hand, Lönnberg[3] has examined eight very young skulls of different species in the collections of the Natural History Museum at Stockholm without observing "a single indication of upper canines or traces of alveoles after such". It is possible, however, that even in these cases dissection would have shown the presence of rudimentary canines. Lönnberg describes moderately well-developed upper canines in a young skull of *Gazella granti* from East Africa.

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