

methods of treatment, as practised in the treatment of human scabies.

(ii) *Demodex*—This is not highly contagious like sarcoptic mange, but runs a chronic course. It is a known fact that each species of animal has its own particular variety of demodex. In dogs it produces a type of disease which became serious, as it causes intensive ulceration of the skin with loss of hair. Demodex infection in man often has superimposed impetigo. This impetigo in man is usually superficial and some of the cases are transmitted from animals. The lesions are ringed and resemble a circinate impetigo. It is generally found in children but rarely in adult person.

Any bland ointment will clear it in a few days in man but in animals the results of treatment is unsatisfactory.

C. *Virus diseases*

(i) *Molluscum contagiosum*—this is found in chicken, pigeon, sparrow, fowl and other birds. To the naked eye and microscopically the resemblance is extraordinarily the same. It has been suggested that the disease is identical in bird and man and may be communicable to man from birds directly or indirectly. Successful inoculations of *Molluscum contagiosum* virus from birds to human subjects have been made.

(ii) Infective warts can be acquired by contact with animals, dogs and cows being the most common sources.

(iii) Milker's node—Handmilking may result in infection of the hands and fingers especially in milkmen in the form of bullous eruption about the size of a large pea which involutes in 6-12 weeks. The virus bears a close resemblance to that of vaccinia but laboratory experiments seem to demonstrate their separate entity. Treatment is symptomatic.

(iv) Orf (Pustular dermatitis)—This contagious disease of sheep may be transmitted to shepherds. The lesions are usually seen on the fingers, each starting as a dark red papule which attains the size of a four-anna piece. The papule is at first hard and painless; it then develops a central umbilication. Fluid accumulates in the centre which rapidly becomes pustular and pain is now apparent. Gradually granulation tissue forms so that the appearance of the lesion suggests that of granuloma pyogenicum.

BIBLIOGRAPHY

AINSWORTH, G. C. (1950). *Nature*, **166**, 547.
 BEARE, J. M., and CHEESMAN, F. A. (1951). *Brit. J. Dermat.*, **63**, 165.

BLANK, F. (1952). *Canadian J. Pub. Health*, **43**, 33.
 BODDIE, G. F. (1950). *Practitioner*, **165**, 67.
 CAMPBELL, C. C., and SASLAW, S. (1949). *Prac. Soc. Exper. Biol. & Med.* **70**, 562.
 COLE, C. R. (1951). *Proc. Amer. Vet. Med. Assoc.* **179**, 1951.
 DUNCAN, J. T. (1945). *Brit. Med. J.*, *ii*, 715.
 HALL, H. T. B. (1947). *Agric J. Fiji*, p. 11.
 HOLMES, J. W. H. (1951). *Trans. St. Johns Hosp. Dermat. Soc.*, No. **30**, 14.
 KLIGMAN, A. M., PILSBURY, D. M., and MESCON, H. (1951). *J. Amer. Med. Assoc.*, **146**, 1563.
 LOEWENTHAL, K. (1948). *Arch. Dermat. & Syph.*, **58**, 27.
 MIKHAIL, C. R., and FALK, M. S. (1952). *Ibid.*, **65**, 23.
 MITCHELL-HEGGS, G. B. (1950). *Modern Practice in Dermatology*. Butterworth & Co. Ltd., London, p. 340.
 PANJA, D., and GHOSH, S. (1952). *Indian Med. Baz.*, **87**, 449.
 POUNDENETC, P. (1952). *Amer. J. Vet. Res.*, **13**, 121.
 RAMSEY, F. K., and CARTER, G. R. (1952). *J. Amer. Vet. Med. Assoc.*, **120**, 93.
 ROBINSON, V. B., and SCHELT, F. G. (1951). *Amer. Vet.*, **31**, 555.
 SAUNDERS, L. Z. (1948). *Cornell. Vet.*, **38**, 213.
 WALKER, J. (1950). *Brit. J. Dermat. & Syph.*, **62**, 239.

Other Original Articles

“CASE NOTES OF SCABIES IN A FAMILY TRANSMITTED FROM GOATS”

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SCABIES is one of the common skin diseases in hospital practice but it is no respecter of rich or poor. Mikhail and Falk (1952) reported that animal scabies is fairly common; the usual sources are camels, cats and cattle. Sequeira (1925) also described that scabies of goat and camel not infrequently attack men. Thomson (Mitchell-Heggs, 1950) who has worked on the animal skin diseases communi-

cable to man also stated that scabies from goat is communicable to man.

In our country the subject has not been investigated and studied except by Panja and Ghosh (1952).

While surveying the presence of skin diseases among the animals in the Belgachia Veterinary College Hospital, two domestic goats were found to be suffering from skin lesions. On investigation, it was found that thirteen members of the family where the goats lived were also suffering from a similar type of skin lesions, with intense irritation. History revealed that the younger goat was affected first but its source of infection could not be traced. At the beginning the goat used to rub its body on hard substances, apparently due to irritation of the skin. Later small papules appeared all over its body, and due to rubbing, the tips of some papular lesions were excoriated and started weeping.

On close examination, some papular lesions were seen in and around the hair roots and the surface of the skin was covered with scales. The hairs were found to be matted together all over the body. In some places, there were partial loss of hairs. Some lesions were producing sero-sanguinous foul-smelling discharge. The animal appeared to be very ill and was ill-nourished. *Sarcoptes scabiei* var. *Caprae* was isolated from the scraped material of the lesions of the skin.

The older goat was affected later with similar lesions, due to infection with *sarcoptes* presumably from the younger one, as both of them used to be in close contact with each other. As the disease was at its early stage, the lesions were limited to and around the nostrils, horns, ears, eyelids and just below the neck. The lesions were dry and covered with adherent scales. In some places there was partial loss of hairs. This animal also used to rub those affected parts against hard substances to allay irritation.

Sarcoptes scabiei var. *caprae* was isolated from lesions of both the animals. The animals were treated by the veterinary Surgeons with the following with success—(1) Tetmosol soap (2) Ung sulphuris 12½% (3) Mange powder.

On examining the members of the family, it was found that the younger members were more affected than the older ones. The lesions were present on the following sites viz. on the inner side of the arms, fore-arms, behind the elbow joints, lower part of the abdomen, groins and buttocks. No burrows were noticed. The lesions were mostly pustular, a few papulo-vascular. Scraping of the papular lesion were collected as in goats to find any *Acarus scabiei* and in four cases, among the members of the family *sarcoptes scabiei* were found. In human

scabies generally the mite is demonstrated from the scraping of burrows.

From the above observation, the following points may be noted in scabies infection in men from animal origin. There was no site of election as in human scabies and the eruptions were most on the parts which were in close contact with the infected animals and the irritation was intense. The burrows characteristic of human scabies were not present. The presence of *sarcoptes scabiei* was detected from the scraping of the papular lesions of the skin. The cases were treated with ung. sulphuris (B.P.) but the response to treatment was rather slow and the irritation of the skin persisted even long after the complete disappearance of the lesions.

The principal features of scabies infection in human beings from animal sources, as found as a result of this clinical study, are:—

1. There is no site of election of lesions as in human scabies. Lesions are generally at the site of contact with the animals. The younger members were more affected than the older ones.
2. No burrows are noticed.
3. Scabies from animal sources causes much irritation that persists even after the disappearance of papular lesions.
4. It takes a longer time to cure the condition with the usual methods of treatment as practised in the treatment of human scabies.
5. *Sarcoptes scabiei* (possibly of animal origin) is found from scraping of the lesions of men suffering from scabies.

Summary

Thirteen members in a family were infected with *Acarus scabiei* from two domestic goats suffering from mange infection, have been described. No burrows were detected, the lesions were most on the sites which were in contact with the infected goats. *Sarcoptes scabiei* was demonstrated from the lesions by scraping. The irritation was intense and the response to treatment was slow.

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REFERENCES

- MIKHAIL, G. R., and FALK, M. S. (1952). *Arch. Dermat. and Syph.*, **65**, 20.
- MITCHELL-HEGGS, G. B. (1950). *Modern Practice in Dermatology*. Butterworth and Co., Ltd., London.
- PANJA, D., and GHOSH, S. (1952). *Indian Med. Gaz.*, **87**, 449.
- SEQUEIRA, J. H. (1925). *Proceedings of Royal Society of Medicine*. **28**, 45.