

nosis and treatment by post-mortem examination, owing to the comparatively short lives of many of our patients, and thus by careful observation and a record of our work we may return to the sister profession at least a remunerative interest. For instance, in the subject of this paper—Eczema—the surgeon has few, if any, opportunities of demonstrating post-mortem observations in this disease, but to the veterinarian they present themselves frequently.

In the present state of our knowledge, however, one thing is especially clear, that any inquiry concerning diseases of the lower animals in their relation to public health, should be conducted conjointly by representatives of the medical and veterinary professions, as laboratory and clinical observations would then probably be more in harmony and calculated to secure the advancement of truth.

Although eczema is usually regarded and classified as a skin disease, I have some doubt if it is but exceptionally, *per se*, a cutaneous malady, but rather to be regarded as a subjective disease, an index whereby the pathologist may read the hidden pages of visceral derangement and structural change. I am confirmed in this opinion by a large number of post-mortem examinations in the dog and pig, and in two in the horse, some of which I will subsequently quote.

Eczema may be defined as acute or chronic hyperæmia and inflammation of the derma, accompanied by, as its name implies, an exudation of serum from the cutaneous capillaries.

All the varieties of the disease described simply represent a series of pathological changes, and the terms usefully express the various objective signs of the malady, viz., redness, cedema, papulation, exudation, producing vesication, with rupture of vesicles and incrustation, subsequently followed by—in the more chronic forms of disease—desquamation of epidermis, thickening and induration (local or general), generally the former, frequently accompanied by fission or cracking of the skin. The subject of eczema is conscious of certain subjective sensations, such as intense burning, itching and pain; the two latter only can be demonstrated in the lower animals, although it may be reasonably concluded from manipulation of the diseased parts that the burning sensation is actually experienced; intense itching is patent in all animals; pain is frequently evidenced upon palpation and by constitutional disturbance.

Acute eczema occurs in horses, cattle, sheep, pigs, and dogs; and the chronic form in horses, pigs (rare) and dogs only.

Again, correspondence in localization of the disease in the several species is remarkable. Local forms occur in man, horses, cattle, sheep, and occasionally in dogs, *e.g.*, nasal and orbital eczema; but in the pig and dog the disease in either variety is most commonly diffused; labial and facial eczema in man, horse, and sheep, the so-called *crusta labialis et facialis*, which represent *E. crustaceum*; mammary eczema in cow, described by some writers as "blister-pox" and "black-pox," which, however, frequently also exist on the soft skin from the umbilicus to the mammae, but is commonly unnoticed, owing to its position. Orbital eczema is also seen in the cow.

Local eczema in its chronic form is well represented in the extremities of man and horse in *E. fissum* and *hypertrophicum*, known to veterinary writers as *psoriasis carpi et tarsi*, or "mallenders" and "sallenders," and the chronic transverse fissures from knee to fetlock, described under psoriasis, and the indurations of "grease," sequelæ of eczema.

In the etiology of eczema, however, is found the most interesting and useful comparisons, as it appears fairly demonstrable that conditions which operate in its production in man are also conducive to similar results in the lower animals, modified in different species.

If this be true of eczema it may be equally so in many other pathological conditions, and it may be possible by such comparison to explain many obscure causes of disease in certain species, which, being occult in one, may be capable of demonstration in another, if, as appears more than probable, common causes have common results modified only by species and circumstances. Causes may be divided in all animals into extrinsic and intrinsic. In the human subject causes operating from without are referred to as irritants acting locally, *e.g.*, heat, moisture, friction, chemical agents, exposure to sun's rays, etc.

Similar causes are doubtless in operation in the lower animals with parallel results, but I think almost invariably associated with some constitutional disturbances acting as a predisposing cause. For instance, it frequently happens that a flock of lambs are pastured upon vetches in the summer,