Review.

Median Neurotomy in the Treatment of Chronic Tendinitis and Periostitis of the Fetlock. By C. Pellerin. Translated, with additional facts relating to it, by Professor A. Liautard, M.D., V.M. New York: William R. Jenkins, 1896.

THIS is a translation of two articles on the subject of median neurotomy, the first by M. Pellerin, and the second by M. Sendrail, both French veterinary surgeons. M. Pellerin's monograph extends to fifty-five pages, in which he describes the history of the operation, the indications for its performance, the method of performing it, and his own experience with regard to it in twenty cases. In eleven of these cases the disease for the relief of which the operation was performed was chronic tendinitis, and in all of these recovery followed; in five of the cases tendinitis was associated with disease of the fetlock, and in each of these improvement followed the operation; in three cases of periostosis of the fetlock two were classed as recoveries and one as a failure; and, lastly, a failure was the result in one case of ringbone. It may be of interest to compare these results with those obtained by Professor Hobday in the larger series of cases recorded in this number.

The second article extends to only six pages, and gives M. Sendrail's experience of the operation, of which he expresses a favourable opinion.

CLINICAL ARTICLES.

SOME CASES OF MALIGNANT TUMOURS IN THE HORSE AND DOG.

By E. E. MARTIN, Veterinary-Lieutenant, Army Veterinary Department, Barrackpore.

IN a very interesting article which appeared in several numbers of *The Journal of Comparative Anatomy and Therapeutics*, for 1890 and 1891, the editor furnished a valuable contribution on "The Occurrence of Tumours in the Domesticated Animals." The contributions consisted essentially of a histological report on numerous tumours sent to him by practitioners, and we are enabled by it to get a very fair idea of the frequency of the occurrence of different varieties and the histological peculiarities they present. With a few exceptions, however, there was not much in the way of clinical history of the cases given.

I have come across several cases of malignant growths lately in which operation for removal has been attempted and the nature of the growths verified by microscopical examination. I think the results may prove interesting, and have therefore penned the following notes on these cases.

CARCINOMA.

White polo pony, mare, aged, the property of an officer in the 19th Bengal Lancers.

The mare was sent to the hospital on the 11th November 1895, said to be suffering from a sore just below the anus ; this had been present for three months, but owing to the owner having been away for the past two months he had taken no professional advice. The mare was very fidgety and had to be thrown to be examined. It was found that the so-called sore was a firm growth situated between the anus and vulva, extending inwardly, and in close proximity to the rectum superiorly and the vagina inferiorly. Superficially it was ulcerating.

Our advice to the owner was immediate and radical removal. Accordingly, two days later she was thrown and anæsthetised, and the tumour was dissected out. It was intimately connected with the rectum and the vagina, so considerable care had to be exercised to prevent incising either. After it had been dissected out and a few small vessels ligatured, the wound was loosely sutured and dressed.

Previous to operation she had been physicked and kept without food for forty-eight hours, and after the operation nothing was given for two days, and then for several days only two pounds of bran were given in a sloppy mash, the object being to keep her empty and to keep the rectum and anus as quiet as possible.

For some time the wound did well, then the edges were found to be indurated, and on the 11th December she was cast and the hardened edges removed.

The wound still refused to close, and on the 28th January she was again cast and an examination made. The edges were indurated, and above the anus on either side beneath the skin two hard irregular swellings, about the size of a pigeon's egg, were felt.

The mare was a very fine polo pony, and the owner was anxious to play her in a tournament that was coming off in a few week's time, so, as I considered entire extirpation an impossibility, I left it alone, and told him I thought she would last over the tournament and very likely for some time after, but it was bound to be ultimately fatal.

I sent her out of hospital on 30th January with full directions for keeping the part clean. She played in the tournament at Umballa on the 25th February. The enlargement had by this time considerably increased, and the owner thought it scarcely worth while paying her railway fare back to Lahore, so he had her shot at Umballa. I was therefore unable to make a *post-mortem* examination.

The Professor of Pathology at the Lahore Medical College kindly undertook the examination of the growth when it was first excised, and he found it to be a true carcinoma.

MELANO-SARCOMA.

In February 1895 a gentleman brought a dark iron-grey country-bred pony, which he contemplated buying, to me for an opinion as to soundness. The animal in question was a five-year-old entire, and had on his right hind quarter a tumour about the size of a tangerine orange. This was of very firm consistence and quite painless. I thought it was a fibroma, and as the pony was in other respects

sound, and the intending purchaser liked his paces, I advised him to buy, which he did.

In January 1896, eleven months afterwards, he brought the pony to me again, saying that he did not want the pony for about six weeks, would I operate and remove the tumour. The latter at this time presented exactly a similar appearance to what it had before, and there was no appreciable difference in size or consistence. I admitted the pony to hospital, and a day or two afterwards operated on him. I found to my surprise on incising the skin that the tumour, which was intimately attached to the lower layer of the skin, was perfectly black, and the fluid that exuded from its cut surface stained the fingers. I dissected it from the under surface of the skin, as I (very foolishly as it turned out) wished to preserve the skin so as to leave as little scar as possible, and I could scarcely believe that the tumour I had looked upon for nearly a year as innocent could belong to one of the most malignant varieties. After incision the skin was brought together with silk sutures.

I sent the tumour to the Professor of Pathology at the Medical College, and shortly afterwards received a note to say that it was a melano-sarcoma of the large round-celled variety. He said that it was the most unusually pigmented tumour he had ever examined.

A week after operation, feeling rather anxious about the case, I examined it carefully, and found a considerable ring of black tissue growing at the periphery, so I had the patient again thrown, and excised the whole of the skin and subcutaneous tissue and a ring of healthy tissue around the part, leaving after the operation a wound in which half a cricket ball might have been placed. The wound did well, and the pony made an excellent recovery. No thickening remained, nor could I find any trace of recurrence or secondary growths when I examined him three months later.

The owner shortly after this time sold him, and I lost sight of the case.

Melanotic-sarcomata are some of the most malignant tumours that we have to deal with. I think this case has two or three interesting points.

First.—The long period, eleven months, during which the growth remained absolutely stationary.

Second.—How quickly local recurrence took place after imperfect removal.

Third.—The good results following radical removal. Unfortunately there was only three months after history, but I think if local recurrence had been going to take place, it would have shown itself in that time. It is quite possible, however, that secondary tumours were forming in the internal organs.

LYMPHO-SARCOMA.

Patient, bull-terrier, about three years old, the property of a native.

Brought to hospital 18th December 1895, suffering from a large tumour in the left groin. The owner was informed that excision was the only remedy, and he consented to the operation being performed. The growth was incised under chloroform, and I append the report of the Professor of Pathology at the Medical College.

"Tumour is irregularly elliptical in outline, measuring 10 by 6 by 5 cm. in its greatest diameter. The periphery is well defined and capsuled, colour on section pinkish red, consistence soft but fairly firm. On microscopic examination it proved to be a lympho-sarcoma."

After the operation the wound did very well for nearly a month, but then several small nodular growths were seen near the edge of the almost healed wound, and one larger one very deep in the right groin. From their position and surroundings I concluded I was scarcely justified in operating again, so told the owner that the dog would ultimately have to be destroyed. The owner was much attached to the dog and wished to keep him as long as possible.

I asked him to let me have the body when the dog died, and he promised to do so. About the end of March the dog died and the owner had him buried at once, as owing to the usual native prejudice he did not want a *post-mortem* examination to be held.

THE USE OF ETHYL CHLORIDE AS A LOCAL ANÆSTHETIC.

By F. HOBDAV, Professor of Therapeutics, Royal Veterinary College, London.

AS I am unable to find any allusion to the use of this substance as a local anæsthetic in our text-books, I thought that perhaps a few notes on its application might prove of value.

Ethyl chloride is a clear fluid with an ethereal odour, and said to be absolutely non-poisonous; it is highly inflammable, and care must be taken not to work with it near a naked light. It is recommended in human practice for dental and minor surgical operations, and also for cases in which the application of intense cold is likely to afford relief. It is conveniently supplied in glass tubes specially designed to concentrate the stream on any particular area and to prevent waste.

In veterinary practice its action as a local anæsthetic is especially valuable for such cases as the removal of small tumours, sitfasts, etc., the painless lancing of abscesses, and various minor operations. The method of application is to clip the hair as closely as possible off the part to be operated upon, cleanse and dry the skin thoroughly, and then allow the stream of ethyl chloride to play upon it (holding the tube a short distance away) until the skin turns white; this takes place in from half a minute to a minute and half or two minutes. If sensation returns before the operation is finished the spray can be reapplied. The process of healing is not in any way retarded by the use of the anæsthetic.

The following cases will illustrate its action:—

CASE I.—27th May. St. Bernard dog, suffering from a large abscess under the throat. The hair was clipped off as closely as possible and the spray applied for one and a quarter minutes, when the skin was quite white; the animal was not secured in any way and