As already stated it is interesting to note that in this animal reaction was obtained within 30 days although it has been laid down by some workers that within this period no reaction is to be obtained in the cow.

THE RESULTS OF INOCULATIONS FROM COW NO. 1.

Leaving out of consideration certain control animals, we inoculated 29 guinea-pigs and 26 rabbits. Of these, as above mentioned, 7 guinea pigs and 3 rabbits were treated with the milk from the right anterior quarter of the udder alone, the rest from the mixed milk from the three or four quarters or from products of the same. The inoculations were, throughout, intraperitoneal, milk being introduced by a syringe through the abdominal wall into the peritoneal cavity. The amounts of milk or "milk products" varied in the guinea-pig ftom 2 cc. of the centrifugalised sediment (obtained from 15 cc. of the milk) to 35 ccm. of the fresh milk, the average and most usuai amount being 20 ccm. of fresh milk, or about two-thirds of an ounce In the rabbit from 10 to 60 ccm. of the fresh milk was used, the average being 25 ccm.

Of all these animals so treated only two guinea-pigs developed tuberculosis, or 6.8% of the inoculated guinea-pigs became affected. These figures require a further correction, three of the guinea pigs having died from sepsis or other cause within three weeks, *i.e.*, before peritoneal tuberculosis could surely manifest itself. It is thus correct to state that two out of 26 guinea-pigs succumbed to tuberculosis induced by milk from cow No. 1, or 7.7 per cent.

Similarly, one rabbito succumbed to septic infection and must be left out of consideration. It has thus to be stated that out of 25 rabbits, not a single one died from tuberculosis as the result of inoculation with the milk of this cow.

Here too must be mentioned the attempt to convey the disease from Cow 1 to a calf by means of feeding that calf solely with the milk. For five months the calf was so fed, and at the end of this time it was apparently in excellent health; it failed to react to tuberculin, and when four months later it was killed there was not a trace of tuberculosis anywhere throughout its tissues.

These results must not be considered unsatisfactory, the most that they prove is that unless very large numbers of animals be inoculated, the inoculation test, highly as many observers have regarded it, cannot be considered by any means a sure method for the detection of tuberculosis. Clearly, as already suggested, the milk of cow No. 1 contained in general a number of bacilli below the minimum necessary to infect the guinea-pig. Here we should add that the rabbit is not so susceptible to tuberculosis as the guinea-pig nor the calf so susceptible as the rabbit, while intraperitoneal inoculation is as a rule much more fatal than feeding with bacilli.

Careful centrifugalisation and the use of a satisfactory method for the removal of proteid and fatty matters has in our hands given much more sure results; but we have to admit, taking our other cows into consideration, that bacteriological examination of the milk will not always indicate the existence of tuberculosis. We thus, from a study of these cows from the Experimental Farm, can but fall back upon the now well established conclusion that of all the methods devised for the detection of the tuberculosis in cattle, none approach in sureness and value to the Tuberculin Test.

SUMMARY AND CONCLUSIONS.

The following are the main conclusions reached by us in the course of our observations upon the cattle from the Experimental Farm at Ottawa, studied by us at Outremont.

1. Without exception all the ten cows which had reacted to tuberculosis at Ottawa presented upon post-mortem examination, seven months later, distinct evidences of tuberculosis. in' in tu ma di is of fe ou ol

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