

that although from these cases we had a source of fresh virus, which could immediately after death be placed in culture media, we had the very greatest difficulty in cultivating the virus, and failed completely to grow it in pure culture. Twice at the request of the Department I visited Auckland and worked on the same lines in conjunction with Dr. Gilmour. Ample material was available for culture purposes, and well over a hundred cultures were prepared very carefully, without producing a growth of anything resembling globoid bodies. This, of course, made the preparation of a vaccine or an immune serum a technical impossibility.

With a view to repeating the findings of Rosenow, we inoculated intracerebrally, through trephine openings, thirteen rabbits. We used 20-per-cent. emulsions of infected cords, injecting 0.2 c.c. in each case. Five rabbits died from septic meningitis or some other cause related to the operation itself. None of these showed any lesions suggestive of poliomyelitis, although some developed paralysis of the hind legs before death occurred. This was, however, found later to be the case with rabbits which had been inoculated with streptococci of low virulence from various sources, and has no relationship anatomically or bacteriologically to that occurring during an attack of poliomyelitis in a man or in a monkey.

Of the rabbits that recovered from the operation none developed anything suggestive of poliomyelitis. We came to this conclusion after examining microscopically the cords of these animals after death.

We regret that out of the volume of work done in connection with the epidemic nothing has arisen which is at all likely to be of assistance from a therapeutic standpoint. Attempts were made to estimate susceptibility by skin tests. Dr. Frengley suggested the use of an extract of preteins from the spinal fluid of infected cases. This was found to be not readily carried out, but, acting along the lines of his suggestion, the following method was used: Cord from a case recently dead was made up to a 20-per-cent. emulsion with saline by grinding in a mortar. This was then filtered through a porcelain filter; the filtrate was heated to 56° C. for forty-five minutes. About one hundred children in the wards of the Auckland Hospital were tested by intradermal injection of 0.2 c.c. of this filtrate. Half of this number were children who were ill with or convalescent from poliomyelitis. In no case was there the slightest reaction which could not be attributed to the mechanical injury to the skin. This destroyed any hopes we had of being able to devise some test on the same principle as the Schick test. I have now made arrangements to hand what cultures and glycerinized cords we have to Dr. Hercus, who is making arrangements to carry on the work. It is my intention to visit Dunedin during the next week and explain to him the details of the work, as this has for the most part been described in outline only in the above report.

I am very grateful for the assistance afforded me by the Department. Everything possible was done to facilitate the work, both in Wellington and other places that I visited for the purpose of collecting material.

If there are any points which you think are not covered by this report, I should be very pleased to supply them from such notes of the work as I have kept.

Yours respectfully,
P. P. LYNCH, M.D.

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