

venient hour of the day. If it is desired to use tuberculin as a test in febrile cases with intermittent temperatures, the dose should be so timed that the reaction will take place during the period of normal or sub-normal temperature. The site of the injection is immaterial but it is customary to select the space between the scapula and the spinal column. The most important point is really the dosage, and on this there is considerable diversity of opinion. It should be remembered that preparations of tuberculin vary considerably in strength and that individuals react differently to the same dose.

It is a safe rule to begin with a very small dose and, if no reaction occur, to give a larger dose in two or three days. Trudeau advises an initial dose of half a milligram of crude tuberculin. Subsequent doses of 1, 2, and 3 milligrams may be given at appropriate intervals if no reaction occur from the minimum dose. It is not necessary or advisable to exceed a maximum dose of 10 milligrams. Grasset and Vedel gave 2-10 to 3-10 of a milligram for the initial dose and 1-2 a milligram for the second. For children the dose must be proportionately smaller. Hutinel advises 1-20 to 1-10 of a milligram up to 1 milligram.

The tuberculin used must be from a reliable source and the dilution freshly prepared. For purposes of dilution a 1-2 per cent. solution of carbolic acid is used.

In addition to the febrile elevation of temperature and the constitutional disturbance, there is sometimes a little redness and infiltration of the skin at the site of the injection with a little tenderness to touch. This has also been observed at the site of a former negative injection, when a larger dose has subsequently been given and has been followed by a typical reaction. If a patient suspected of pulmonary tuberculosis reacts to tuberculin, a careful examination of the lungs should be made during the period of reaction. It is then sometimes possible to detect some of the early auscultatory phenomena accompanying tuberculous infiltration of the lungs, which were previously absent.

The tuberculin test has been used to detect tuberculous foci not only in the lungs but in the pleura, pericardium, peritoneum, genito-urinary tract, meninges, glands, bones, skin, and mucous membranes. In 68 cases of pleurisy, Beck found that 50 gave a positive reaction, a percentage of 73.2. Of 17 cases of cervical adenitis, 16 reacted, or 94 per cent.; and of 13 cases of adenoids of the naso-pharynx, no less than 12 gave a reaction, or 93.3 per cent. These few examples sufficiently illustrate the value of tuberculin as a diagnostic agent.

Of still greater interest are those cases in which there are present one or more of those pathological conditions that I have referred to as constituting presumptive evidence of tuberculous infection. For instance, in chlorosis, in which Beck in 36 cases obtained a reaction in 19—a little over 50 per cent.