changes in its constitution will have already taken place; just as we see takes place in a few hours in the ruptured vesicle. If, however, to such hurtful influences we further add that the lymph has too frequently in the past been taken from a vesicle which has been pressed until blood corpuscles are present in the lymph, or from a ruptured vesicle which has become pustular after rupture of its walls, it will not be difficult to understand not only how lymph may become altered and wholly or partially inert, producing no result or only the fashionable mulberry appearance; but also how septic matters may be mixed with the lymph of inoculation. We have stated the case strongly from the biological standpoint in order that those of the profession who have not—and there are many—had the opportunity of studying the question of vaccinia inoculation may realize not only the reason why vaccination may become prophylactic, but also of the dangers which through ignorance or carelessness may attach to the process. Is it to be wondered at that practitioners should dislike being troubled with an operation which demands so much care? If they use points on hand more than a few days they get no result, or if any, then an altered and imperfect result. If again the patient abuses the directions of the physician—or unfortunately when the latter has neglected to give any—and gets damp during the febrile stage, or continues at muscular labor or exercise with his arm during this period, local irritation often of a serious character follows; and the physician, the vaccine, and the principle, are attacked in unmeasured terms. With all these facts before us, it has been a source of the greatest surprise that, with the many thousand vaccinations performed during the past few months in Ontario, more accidents from such causes as have been enumerated have not happened. We are confident that the more systematic, in the matter both of practised operators and stated seasons, vaccination becomes, the more successful will be the results and the fewer will become the complaints of untoward results attaching to this beneficent protection against one of the greatest scourges in the world's history.

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MEDICINE.

Rules for Altitude Treatment of Pulmonary Tuberculosis.

Dr. Frederick I. Knight, Clinical Professor in Harvard University, Boston, recently read a paper before the American Climatological Association, in which he gave the following rules which his experience has found a useful guide in recommending to patients a change of climate:—

For the sake of convenience, I will make use of the types of the disease employed by me in a previous paper.

1. Patients presenting the earliest physical signs of tuberculosis of the apex, who have as yet shown little, if any, general disturbance from the disease, and who complain only of morning cough and expectoration.

These are the patients who are known to recover under a great variety of conditions, both climatic and social; but it seems to me, after considerable experience, that a larger proportion have recovered under the high altitude conditions than under any other. With a few exceptions, such as for general reasons previously mentioned, I should recommend high altitude for these cases.

2. Patients with more advanced disease, showing some consolidation, but no excavation, nor any serious constitutional disturbance.

High altitude is suited to many of these cases also; but if a considerable area of one lung, or the apices of both are consolidated, if the pulse and temperature are both always above 100, it may be well to try some low altitude first. When quiescence in the morbid processes is established, a change to higher altitude can be made.

3. Hæmorrhagic cases. Patients in whom pulmonary hæmorrhage has been, perhaps, the earliest, and a frequently recurring symptom, but in whom there is, as yet, no marked febrile reaction, nor much physical evidence of disease.

In my experience this class has done particularly well in high altitudes. The tendency to hemoptysis seems to be diminished rather than increased. This seems to me to be explicable more through improvement in nutrition of the lung parenchyma