

under full antiseptic precautions should be undertaken. The uterus should be irrigated with an antiseptic solution after curettement.

If, however, the infective process has extended to the tubes, or to the broad ligaments, with inflammatory conditions in the pelvis; or to general peritonitis, or to septicæmia, then too much importance should not be placed upon uterine irrigation. This does not influence for good the processes in the deeper portions of the uterus or those which have extended beyond it. He indeed holds that such cases are injured by any manipulation such as would be necessary to irrigate the uterus.

His experience is that irrigations are not necessary for more than one or two days, if the operation of cleaning out the uterus has been properly performed at the outset, and that douching after two days is a source of harm rather than of good.

As to operative proceedings after septic abortions, the author holds, that after all proper proceedings, such as curettement, douching, and a pencil of 50 grams of iodoform introduced into the uterus, and subsequent douching have been performed, and the inflammation still spreads, that while the disease is localized either in the tubes, pelvis or broad ligaments, no operative measures are called for. Proper diet, mild purgation, ice or very hot applications to the hypogastrium, the exhibition of quinine and strychnia, etc., should be applicable to all such cases.

But if evidence of pus formation show, or if general peritonitis supervene, or a condition of septicæmia come on, *operation is indicated*. Up to the present time, abdominal section, removal of diseased structures, irrigation and drainage has been the accepted plan of treatment. At the present, many hold that vaginal hysterectomy is the proper method to pursue.

If general septicæmia exists, and the case is going on from bad to worse, Dr. Noble holds that operation, either abdominal or vaginal, is eminently proper, and promises to save the lives of many who, under the expectant plan of treatment, would die.

The objection, that many women would be unwarrantably subjected to hysterectomy, is not in his opinion valid, inasmuch as the patients are so ill that no surgeon would desire to operate upon them, except under the conviction that by doing so the patient's chances for life would be in-

creased. Such cases are those in which the women have been violently ill from the beginning, and who either improve or die within a week from the time the septic symptoms appear.

### SEPTIC INFECTION, INTOXICATION AND PYÆMIA.

Now that antiseptic surgery attempts the cure of surgical diseases, and the performance of operations, in a manner calculated as far as possible to avoid the entrance into the circulation of any septic material, the diseases named above have a larger interest to the physician proper. As a matter of fact the *post-mortem* room shows few cases with the anatomical diagnosis of septicæmia—coming from the surgical wards of hospitals; by far the greater number are from the medical side.

There is we think rather vague conceptions in the minds of many professional men regarding the nature of the three diseases—the term *blood poisoning* perhaps covering any or all of them. No doubt mixed forms frequently occur, yet there is sufficient distinction between them to make it worth while for writers and speakers to be more careful as to their terminology.

Septic intoxication, or as it is sometimes named sapremia, is a non-infective disease, due to the absorption of a chemical poison, manufactured outside the body, or at least not in the living tissues of the body.

This chemical poison is a toxin produced generally, if not indeed always, by the life of pathogenic micro-organisms. It does not reproduce itself in the blood, and is therefore dependent for its symptoms and event upon the amount taken into the circulation. Its presence and effects may be comparable to the injection of a toxic alkaloid.

There is no secondary or metastatic inflammation, and is therefore not a pyæmia, but a septicæmia. Practically, it is useful to know that the amount of putrid serum or blood which would kill an adult by septic intoxication when taken into the circulation, is large, viz., one to two ounces; so that death from this form of blood poisoning will necessarily only occur when large cavities exist and are either undrained or imperfectly drained, as in serious compound fractures, abdominal sections, wounds of joints or pleuræ,