

THE PLASMA SOLUTION IN AFFECTIONS OF THE EYE, NOSE AND THROAT.

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IN addition to the many surgical and medical measures directed to the treatment of diseases of the eye, nose and throat, we are frequently confronted by the necessity of cleansing or irrigating these organs, and the question arising is "How may this be accomplished with the minimum amount of irritation to the diseased structures?"

Fifteen years since, becoming dissatisfied with the existing formulæ commonly employed as sprays or douches in nose and throat work, I considered what would best meet the existing indications for a non-irritating solution, which must be of an alkaline reaction and which could be used for an indefinite period, if necessary, as a means of removing crusts or secretion from these organs and their accessory cavities.

The mucous membrane of the nose, particularly, is very intolerant of even the slightest irritant, and I have found the combination of crude alkalies and antiseptics in common use very unsatisfactory and meeting no scientific indication, being in fact, a survival of the days when so-called "Catarrh" was treated by germicides of various natures. The solutions were not of sufficient strength to destroy the micro-organisms in any case, but were quite able to cause irritation and engorgement of the tissues if used for any length of time. Then we are also aware that when once a disease due to these organisms, attacks a mucous membrane and becomes manifest by increased secretion and swelling of the parts, as seen in acute rhinitis and influenzal attacks, they have penetrated to the basement membrane and live out their life history undisturbed by surface applications which cannot penetrate and destroy them without injury to the tissues. I am here speaking of solutions containing antiseptics used in the form and quantity of sprays and douches, not of local treatment of ulcers, etc., where drugs of sufficient strength can be employed without danger and under control of the surgeon. In ordinary chronic simple rhinitis very few organisms are to be found in the nasal cavities. The researches of St. Clair Thomson and others clearly establish this fact so well recognized at the present time. In acute conditions of a catarrhal nature sprays are, in the majority of cases, contraindicated, owing to the possible danger of causing extension of the disease to the eustachian tube and thence to the middle ear and mastoid.

After many trials of different salts, the alkalinity of the blood