

## A NON-CAUSTIC CRESOL (CRESATIN) IN DISEASES OF THE NOSE, THROAT AND EAR.

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For a year or more, I have been using this new cresol compound as a local application in various pathological conditions of the upper air-passages and ear, whenever an antiseptic was indicated, and have been favorably impressed with its therapeutic activity. It is offered as a valuable substitute for carbolic acid and the cresols, possessing their well-known bactericidal and analgesic properties, but being devoid of irritating and escharotic action.

Cresatin is the acetic-acid-ester of meta-cresol, and represents about seventy-two per cent of meta-cresol, which is the least toxic of the cresols and less toxic than carbolic acid. It retains the characteristic antiseptic and analgesic effects of meta-cresol, without the above-mentioned objectionable features. Being less of a coagulant of albumen, its penetrating powers should be more decided than carbolic acid.

Cresatin is soluble in animal or vegetable oils or fats, also in alcohol, but practically insoluble in water. It is stable, does not discolor or undergo any other change on standing. Being a definite chemical compound, it is always uniform, distilling without decomposition at  $214^{\circ}$ - $215^{\circ}$  C.

In a number of cases of furunculosis of the external auditory canal, this preparation was applied in full strength on cotton tampons. The canal was previously cleansed with alcohol, and the saturated tampons were then placed firmly in position over the infected area. This treatment was repeated every two or three hours by the patient. A sensation of warmth was at times noticed, which was soon followed by a feeling of relief from the previously existing pain. This analgesic action was observed in a number of instances. In some of the cases, where suppuration had not appeared, pus was seen on the tampons after a few applications. In other patients the tumefaction gradually subsided without visible evidence of pus, and with no recurrence of the infection.

Pleasant results were obtained in eczema of the external canal, especially where the symptom of itching was very annoying. The parts were first dried and cleansed of epithelial debris, and cresatin was painted over the affected areas in pure form. In some pa-

tients, prompt relief was experienced, but in the more chronic variety of the affection a few applications were required before the desired result was noted.

In chronic purulent otitis media, after cleansing the canal and middle-ear, the preparation was used rather freely, through the perforated membrane. At times, a tingling sensation was noticed, but this soon subsided and no discomfort followed. After a few treatments in this manner, the purulent discharge lessened and gradually ceased. In a case of cholesteatoma of the middle-ear and mastoid, where nature had performed a successful radical operation, accumulations of ceruminous and epithelial debris would at times cause irritation of the neighboring skin. Two or three applications of cresatin, after removal of the foreign material, would end the local disturbance.

On account of its antiseptic and penetrating action, I have employed cresatin in a few cases of atrophic rhino-laryngitis. The parts were first thoroughly cleansed of dried secretion, which is a necessary procedure in the proper treatment of this unpleasant and stubborn disease. The compound was then applied with considerable friction, in full strength by means of a cotton applicator, to all accessible areas. Post-nasal paintings were also given. The mucous membrane responded promptly to the stimulation, and the patient remarked that the parts felt moist and comfortable for some hours after the treatment. Most of these cases are clinic patients whose attendance was irregular; so no definite conclusions can be reached from them. In two private individuals who received more careful attention and who used also a twenty-five per cent cresatin in olive oil solution at home, decided improvement was noticed.

Home treatment in this obstinate and unfortunate affection must be a necessary adjunct. In the patient's hands a forcible atomizer\* will probably give better results, as the medication will reach a greater area than by simple application.

Cresatin has been used in acute follicular tonsillitis with considerable success. It has also been found that the duration of the affection is shortened by direct application in pure form, thoroughly rubbed into the follicles. The analgesic and antiseptic effect in these cases makes it of decided value.

It should be of considerable service in painful lesions about the lips and mouth,—i. e., herpes facialis, fissured lips, apthous stom-

\*It is best to use an atomizer all parts of which coming in contact with the preparation are made of glass.

atitis, and in dental manifestations. It has been used with prompt effect in an abscess of the gum, after the pus was drained. In twenty-four hours no further discomfort was noticed. The cresatin was applied between the tooth and the gum.

In cases of folliculitis of the nasal vestibule, a few treatments with cresatin gave the desired relief.

Before ending these desultory observations, it may be of interest to mention the pleasant effect of this new analgesic antiseptic in a case of advanced tubercular ulceration of the epiglottis in a male 45 years old. Pulmonary disease had existed for over three years, and the local involvement had been under treatment by a colleague for some time. Lactic acid had been employed, but when I saw the patient for the first time, the extensive invasion of the epiglottis prompted me to test the merits of cresatin. The free edge of the epiglottis presented the typical moth-eaten ulceration, with some loss of tissue in the median line. The organ was considerably infiltrated, and the contiguous tissue over the lingual surface was very edematous. Dysphagia and paroxysms of cough were the symptoms chiefly mentioned. The man's general condition was good, appetite fair, and the painful area in swallowing was principally localized to the right side of the throat. A probe could be passed between the soft infiltrated tissues on the lingual surface of the epiglottis and the cartilage on the right side. After cleansing the parts, a ten per cent solution of cocain was applied at the patient's request, owing to previous discomfort under pure lactic acid treatments. Three paintings of cresatin were given at the first sitting, the liquid being carried under the raised tissue and thoroughly rubbed into the ulcerated areas. No unpleasantness was experienced from the rather heroic manipulations. In three days the patient returned for further treatment and stated that the application had given him considerable comfort and that deglutition was much easier. At the second visit no cocain solution was employed before applying the antiseptic and, except for a mild stinging sensation which soon passed away no annoyance was felt. As a result of these treatments, the infiltration was noticeably lessened, with a cleaner and healthier appearance of the ulcerations. A period of ten days elapsed before the patient returned to the clinic due to a catarrhal attack, and the lesions had again resumed their former state. Cresatin treatments were continued in the same manner as before, and beneficial results were again observed, the patient stating that if his throat "looked as well as it felt, it must have improved quite some." To further the local action of the

preparation, inhalations were carried on at home. Ten drops to a pint of steaming water for a period of fifteen minutes, twice daily.

While my experience in the above case is not cited as a criterion of the value of this new compound in this serious and distressing affection, nevertheless I have gained the impression that it is in this class of local infections and painful ulcerative lesions that a promising field for its analgesic and antiseptic activity is offered.

Cresatin alone or combined with the essential oils of eucalyptol, pine needle, or peppermint, with which it is readily mixable, may prove very serviceable in the treatment of infectious diseases of the upper air-passages. It may be used with an atomizer, vaporizer, or by steam inhalations.

I take this opportunity of thanking Dr. N. Sulzberger, the originator of this preparation, for his kindness in acquainting me with its physical and chemical properties and for his reports of laboratory investigations.

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#### **Unusual Sequestrum From Suppurative Otitis Media.** A. H.

ANDREWS, *Jour. of Ophthal. and Oto-Laryngol.*, Dec., 1910.

A farmer, 66 years of age, had chronic suppurative otitis media for thirty years, with pain and gradually increasing facial paralysis for the last four months.

A radical mastoid operation showed an irregular cavity, the size of a hickory-nut filled with granulations, the bony tegmen was necrosed to the size of a dime, a discharging sinus led into the posterior wall of the auditory canal near the drum and the outer wall of the aqueductus fallopii was eroded and exposed the nerve at the inner wall of the tympanum.

Three weeks later recurrence took place and a second operation was undertaken, two months after the first operation, when a sequestrum was removed comprising the greater part of the petrous portion of the temporal bone. The mass measured one and one-eighth inches long, eleven-sixteenth of an inch wide and seven-sixteenths of an inch thick. Twenty-four days later the patient died of meningitis.

STEIN.