Indigenous Drug Combination in the Treatment of Rhinosinal Infections and Allergic Rhinitis
(A Preliminary Report on the Study of the Effect of Septilin)

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"The modern scientific world today is becoming increasingly aware of the wealth of therapeutic agents of our ancient indigenous medicine. With the worldwide acclaim of India’s wonder drug, Rauvolifia serpentina, the scientific world may be anxious to accept other indigenous drugs that have been scientifically investigated.

Struck by the claim that some of the indigenous remedies have marked anti-infective properties, it was decided to study the effect of Septilin because it embodies the antibacterial principles of several plants. And possible effect in Allergic Rhinitis was also investigated.

Septilin is claimed to be an effective therapy against all ineffective states particularly of the ear, nose and throat. Further, it helps to build up resistance to infection in the mucosa, dries up the excessive secretions of the mucous membrane and is most effective in the treatment of the common cold.

COMPOSITION
Each tablet contains:
Balsamodendron mukul 0.162 mg
Maharasnadi quath 65 mg
Shankh bhasma 32 mg
Exts. Phyllanthus emblica 16 mg
Tinospora cordifolia 49 mg
Rubia cordifolia 32.4 mg
Moringa pterygosperma 16 mg
Pristimera indica 32 mg

PHARMACOLOGY
A brief review of the pharmacology of the various ingredients of Septilin will not be out of place.

Balsamodendron mukul (Guggul): The Oleo-gum-resin exuded by this tree has been regarded as a sovereign remedy in ancient medicine. It is a bitter stomachic and carminative and improves digestion. It is quickly absorbed and is excreted by skin, mucous membranes and kidneys and in the course of excretion it disinfects their secretions improves the function and stimulates the activity of the respective organs. It has marked antiseptic properties.

Recent scientific investigations show that the therapeutic action of this drug is not unlike that of ACTH for it raises the general defence mechanism of the body and so helps to overcome infective processes and inflammation. It is hence reputed to be an ancient “Broad Spectrum” drug with a wide therapeutic range.

Shankh bhasma: This is calcium carbonate and calcium hydroxide in a natural easily assimilable form.
Tinospora cordifolia (Gulvel) is a diuretic and alterative agent and tonic. It stimulates the liver and is also antipyogenic.

Rubia cordifolia (Manjishta) is well known for its antipyogenic properties and is widely used as a blood purifier.

Phyllanthus emblica (Amla) is the richest natural source of ascorbic acid. The effect of vitamin C on the adrenal cortex and in building resistance to infections are well-known.

Moringa pterygosperma (Sonjna): The root bark of young trees contains a physiologically active basic principle “Spirochin” and an antibiotic substance “Pterygospermin”. Spirochin is effective in combating Gram-positive infections specially staphylococcal and streptococcal. It promotes epithelialization and has an analgesic effect. Pterygospermin exhibits pronounced antibacterial activity against Gram-positive and Gram-negative organisms.

Pristimera indica: contains antibacterial principle Pristimerin which is active against a large number of Gram-positive cocci, particularly *Streptococcus viridans* and *streptococcus pyogenes*.

**THE STUDY PROPER**

In the past 7 months, 27 cases were selected for the above study from Dr. R.A.F. Cooper’s O.P.D. at Bombay Hospital. Of these 17 were cases of Acute Purulent Sinusitis (with or without associated allergy) and 10 were cases of frank allergic rhinitis. Each patient was examined twice a week and the progress of the disease relief was carefully noted.

Cases with purulent rhino-sinusitis presented varied complaints, viz., repeated colds, sneezing, fronto-temporal headaches, fever, foul smell to themselves, watering, coughs, nasal blocking, loss of interest in the surroundings, epistaxis, mucopurulent rhinorrhea, edema over lower eyelids and even deafness.

The main complaints of patients with Allergic rhinitis were: watery rhinorrhea, sneezing, nasal obstruction and headache at times.

Any previous treatment with other drugs was inquired and a thorough E.N.T. check-up was made in each case in the first instance. The status of the nasal mucous membrane was observed. Tenderness over the frontal and maxillary sinuses was elicited and the character of the discharge in any/all of the meati was noted. When there was no obvious discharge in the nose a history of purulent rhinorrhea, a radiogram of the sinuses was obtained to investigate the state of the sinul mucous membrane.

A note was also made of any accompanying nasal lesion, viz., Allergy, D.N.S., Polyposis, Hypertrophied turbinals.

A search was also carried out to find out any pathology in teeth, tonsils and gums. Further, an antral lavage was carried out on one or both sides when deemed necessary. In each case the study was directed to observe:

1. Smear (direct) and culture of the material obtained by a post-nasal swab, before treatment with Septilin.
2. Earliest clinical response with Septilin.
3. Duration of treatment with Septilin required to produce total improvement.
5. Direct smear and culture of the material obtained by a post-nasal swab after treatment with
Septilin to see if the organisms responsible had disappeared.

6. To compare the effect of Septilin + Antral lavage + symptomatic treatment with those without Septilin. (A control series of 15 cases was studied who received symptomatic treatment and antral lavage but no Septilin).

7. Leucocytic count

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RESULTS

Out of a series of 17 cases with frank Purulent Sinusitis 12 cases were completely relieved of their ailment; one (case 14) improved partly (i.e., though the discharge disappeared and bacteriologically he was sterile, his headache still persisted); two had no relief from the symptoms (cases 12 and 19) and two of them did not keep the follow up (cases 2 and 3). Clinical response set in from the very next day of treatment as in cases 4, 5, 8, 10, 18 and 20 to the 5th day as in case 7, from the beginning of treatment with Septilin.

Total improvement occurred in from 3-21 days. Symptoms disappeared, mucous membrane returned to normal and bacteriologically they became sterile.

In general, cases of sinusitis associated with allergy required a longer course of treatment than those without allergy (cases 6, 11, 16 and 25). On an average, these cases required treatment with Septilin for 12.5 days to be totally free from symptoms. Out of 17 cases of sinusitis 4 had associated allergy.

Two of the cases presented a history of allergic manifestations to sulfonamide and penicillin (cases 5 and 20). Both these cases tolerated Septilin without any undue manifestations and were cured in 6 and 3 days respectively.

Re: Antral lavage + Septilin: Recovery was much speedier when an antral lavage was combined with treatment by Septilin. The control series required repeated washings while in those with Septilin and lavage, only a single puncture was necessary and often the recovery set in by the next day. Clinical improvement however, always preceded the stage of bacteriological sterility as revealed by the smear and culture reports.

In two cases, the patients returned after about a fortnight with similar symptoms as before (cases 11 and 16). Nevertheless, they recovered with a second course of Septilin. This proves there was at least no immediate resistance to the drug.

No definite conclusions could be made for the duration of treatment required by cases of Rhino-sinusitis with a badly deviated nasal septum or septic tonsils and those without these accessory lesions. About the role of Septilin in Allergic rhinitis, only one (case no. 13) had considerable symptomatologic relief within 10 days of treatment. The clinical signs (viz. discoloration and bouginess of the mucous membranes over the turbinates and septum) i.e. the amount of watering and the number of sneezing were reduced but did not disappear. Clinically, the nasal mucous membrane showed no evidence of return to normal. The rest of the cases (i.e. cases 15, 17, 21, 22, 23, 24, 27 and 28) had no relief whatsoever - clinical or symptomatologic - in spite of a rigorous treatment with Septilin lasting for 21 days. There was no relief in the sense of nasal obstruction. The watery rhinorrhea and sneezing continued and the headache persisted. None of the above cases, however, became worse during the course of treatment. Neither total and differential leucocytic counts nor the nasal cytology revealed any significant change.
DOSE
All the cases were put on 2 tablets of Septilin t.d.s. for 3 days initially. Cases in which improvement was not apparent by 3rd day, the drug was continued till clinical improvement set in. Drug was discontinued as soon as total clinical and bacteriologic improvement was noted. Total improvement occurred in from 3-21 days. In general 2 tablets t.d.s. were given for 10 days; discontinued for 3 days and administered again for another 10 days.

CONCLUSIONS
1. Septilin has a sterilising effect on the organism with Acute Rhino-sinusitis.
2. Clinical improvement preceeds stage of bacteriological sterility.
3. Recovery is much speedier when treatment with Septilin is combined with antral lavage (as compared with a control series).
4. In cases of Rhino-sinusitis with associated Vasomotor Rhinitis, a longer regime of treatment with Septilin was required.
5. Septilin was useful in cases allergic to Sulfanamides
   Penicillin
6. No toxic reactions were seen during the course of treatment.
7. No drug resistance was noted.
8. Septilin was not found quite useful in cases with frank allergic rhinitis.

ACKNOWLEDGEMENT
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REFERENCES