

**PENICILLIN SENSITIVITY - A SHORT NOTE.**

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Cases of Penicillin sensitivity recorded in India are few & far between. Gupta (1) in his article on Penicillin sensitivity has described the fatal case of a young woman after injection of Procaine Penicillin (400,000 Units).

It is strange that only comparatively recently cases have been recorded of several types of allergic phenomena, though Penicillin has been in common use for over a decade. It has, however, to be noted that Sodium salt of Penicillin as such was used primarily, followed by Penicillin in oil and wax mixture. To slow down and keep up a constant absorption, the latter has been replaced by Procaine Penicillin or a combination of an Aluminium salt etc. It is since then that allergic symptoms have been noted but the reason is not clear. The fact remains that physicians and surgeons note such cases in their practice in India but are averse to record the same.

It is often noticed that several cases, where Procaine Penicillin was injected in strong and sturdy patients, exhibited a condition of 'shock' i.e. shivering, cold, sweat, rapid and feeble pulse, but fortunately they recovered without any treatment. A unique case of haemorrhage in the eye as a result of Penicillin injection is worth recording.

Patient was a young man of 32 years, suffering from Glaucoma in the right eye. He was operated by DR. V. K. CHITNIS for this condition and a small injection of Penicillin (Crystalline 100,000 units) given under the conjunctiva. This was followed by a daily injection of Procaine Penicillin (400,000 units) for 4 days. On opening the bandage on the 4th day, a subconjunctival haemorrhage was noted. Patient was injected with 'Claudlin', Calcium gluconate, Congo red etc., daily without any effect, haemorrhage if anything was increasing, Procaine Penicillin was continued during this period. It was suspected that Penicillin drops in the eyes & the intramuscular injection may be the cause, all injections & drops were stopped with very gratifying results. There was no fresh haemorrhage and the existing one was gradually absorbed. It reminds one of 'Schwartz Phenomena' where for demonstration a suspension of B. Typhosus was injected subcutaneously in the thoracic region of a rabbit, followed 24 hours after by an intravenous injection of a similar suspension, a local haemorrhage at the site of the injection results inevitably.

From practical point of view, it is desirable to know whether it is possible to anticipate in a patient the sensitiveness to the drug & whether it is common. Without intradermal tests, it is not possible to judge whether a person is allergic to Penicillin or may be to procaine itself. This is not always practicable as it is time consuming for a busy practitioner and patients are averse to an extra injection.

Is there a short cut to avoid such untoward reactions? It is advisable to keep an ampoule of a standard antihistamin drug which can be given immediately, injected intramuscularly in mild reactions and intravenously in severe ones. A large consensus of opinion has confirmed that the simultaneous injection of antihistamin agents (Antistine, Pyrobenzamine, Chlor-tremeton) practically eliminates any such adverse phenomena. Simon (2) writes "It was shown conclusively that the reaction with various antihistamines added to crystalline Potassium Penicillin G materially reduced from an average of 5% to 0.72% in 5000 cases. When an optimum amount of antihistamines were added to Penicillin, the figure was reduced even further, never above 0.5%, and over 2000 patients below 0.2%".

Maslansky & Sanger reviewed various series of patients in which the incidence of penicillin sensitivity ranged from 1.4. to 7.8%. with the addition of ten milligrammes of Chlor-tremeton maleate was given with Procaine Penicillin (400,000 units) in 1055 injections to 897 patients known to be Penicillin sensitive, the incidence was 0.11% only.

Now that the Hindustan Antibiotics, a Government Concern is going to manufacture Penicillin in India, will it not be worthwhile to add 10 Mgms of Chlor-meton Maleate or other suitable antihistamines to Penicillin itself or put up ampoules of distilled water containing such amounts to safeguard the patients.

#### Summary & Conclusion.

Instances of sensitiveness to Penicillin are recorded. The addition of antishistamine drugs to the Penicillin injection reduces the incidence of the allergic phenomena.

I am grateful to DR. V. K. CHITNIS for the records of the Ophthalmic case noted above.

#### References.

1. Gupta - Aero Medical Society Journal April 1954-Vol.I, page 38.
2. Simon letter to Journal of American Medical Association Vol.153, 18th Dec. 1954 page 1498.
3. Maslansky & Sanger - A Method Of Decreasing Penicillin Sensitivity Antibiot and Chemother (Wash) 1952, 2 8 pp 385-388.