GENTICIN IN CONJUNCTIVITIS AND KERATITIS*†

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GENTAMICIN sulphate (Garamycin: Schering) is a mixture of two pseudo-oligosaccharides produced when *Micromonospora purpurea* is grown in submerged culture; the structure of the molecule has not yet been established.

This is a preliminary survey of a series of 27 cases of conjunctivitis and keratitis treated with Gentacin eyedrops. They were not selected but taken at random as they presented at the Eye Out-Patients Department.

Methods

The diagnosis of conjunctivitis and keratitis was made clinically. No attempt was made to distinguish between catarrhal and purulent conjunctivitis, but bacteriological examination was carried out in all cases. Some cases may have been manifestations of allergy, but our purpose was to test the use of Gentacin in all conditions of conjunctivitis and keratitis, regardless of their aetiology. The criterion for cure was a clinical examination, no further cultures being undertaken. In none of the cases pronounced cured, was there a relapse clinically.

Bacteriological Investigation

Nutrient broth was inoculated immediately with the exudate sampled on a sterile cotton-wool swab. If, after incubation, growth occurred, the organisms were identified by routine methods. No viral cultures were undertaken.

Treatment

If possible, the patients were admitted to hospital, to ensure proper instillation of the Gentacin eyedrops six times a day. Except for Case 2, and Case 13 infected with *Klebsiella*, Gentacin was not given for more than one week.

Results

In most cases the infection cleared up in 2 to 3 days. The Gentacin had no effect on cases in which the infection clinically appeared to be due to a virus. Irritation from the drug was not encountered.

The Table (p. 561) shows that Gentacin is a rapidly-acting and safe drug for local use in conjunctivitis and keratitis caused by bacteria.

Of importance is the fact that Gentacin acted rapidly in both *Pseudomonas pyocyanea* and *Klebsiella proteus* infection.

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TABLE
PARTICULARS OF 27 PATIENTS TREATED WITH GENTICIN

Number	Age (Years)	Admitted to Hospital	Diagnosis	Effective in:	Culture Report
1	30	Yes	Conjunctivitis	3 days	No growth
2	59	No	Keratitis and conjunctivitis	9 days	No growth
3	53	Yes	Conjunctivitis	3 days	No growth
4	58	Yes	Keratitis	No response	No growth
5	52	No	Conjunctivitis	No response	No growth
6	13	Yes	Bilateral conjunctivitis	No response	No growth
7	49	No	Conjunctivitis	2 days	No growth
8	14	No	Conjunctivitis	3 days	No growth
9	32	No	Marginal keratitis	No response	No growth
10	22	No	Conjunctivitis	(Unreliable patient) 3 weeks	No growth
11	37	No	Conjunctivitis	2 days	Not cultured
12	42	No	Conjunctivitis	4 days	<i>Staph. albus</i>
13	8/12	Yes	Conjunctivitis with preauricular gland enlargement	5 days	<i>Klebsiella</i>
14	4/12	Yes	Bilateral conjunctivitis	3 days	<i>Strept. pneumoniae</i>
15	57	No	Conjunctivitis	4 days	<i>Staph. aureus</i>
16	24	Yes	Keratitis and conjunctivitis	3 days	<i>Staph. aureus</i>
17	23	Yes	Marginal ulcer	3 days	<i>Staph. albus</i>
18	68	Yes	S.P.K.*	7 days	Not cultured
19	75	Yes	Conjunctivitis healed, but S.P.K. which developed did not respond to Gentacin	3 days	<i>Staph. albus</i>
20	51	Yes	Conjunctivitis	within 7 days	<i>Proteus</i>
21	16	Yes	Traumatic keratitis	2 days	<i>Staph. albus</i>
22	52	No	Conjunctivitis	2 days	<i>Staph. albus</i>
23	40	Yes	Conjunctivitis	4 days	<i>Staph. aureus</i>
24	Newborn	Yes	Bilateral conjunctivitis	48 hrs	<i>Pseudomonas pyocyanea</i>
25	53	No	Conjunctivitis	6 days	<i>Staph. albus</i>
26	68	Yes	Corneal ulcer	4 days	<i>Proteus</i> and <i>Strept. pneumoniae</i>
27	10/12	Yes	Conjunctivitis and blepharitis	4 days	<i>Staph. aureus</i>

* Superficial punctate keratitis

The first occurred in a newborn infant (ophthalmia neonatorum); there was a purulent discharge from the eye and keratitis was not present.

The second occurred in a case of keratitis previously treated at home with another antibiotic eye ointment by the general practitioner.

I wish to thank British Schering Limited for supplying the Gentacin eyedrops. The drug is now available in drops and ointment, details of which may be obtained from the Nicholas Research Institute Limited.