# Results

Table 1. Out of total 110 patients included int he study, 30 patients could not come back for follow up. 80 patients complained of urethral discharge and burning micturition and 30 patients com-

acquired relative resistance to penicillin throughout the world and that this relative resistance can be overcome by using higher dosages of penicillin<sup>6</sup>. The current clinical concept is that a single large dose of penicillin is more

TABLE No. 1
Showing the results of antibiotic treatment in acute gonococcal urethritis

Treatment Schedule		Results (3 Weeks Follow-up)			
Drug	Dosage	Total No. treated	Total No. followed	No. of failures	Percentage of cure
Penidure A. P. (All purpose Penicillin)	2.4 M. Units in single session (Males) 4.8 M. Units in two consecutive			-	
	days (Females)	28	20	1	95
Minibiotic (Doxycycline)	200 mg. twice daily for three consecutive days (Males & Femals)	30	22		100
Septran (Sulphamethoxazole + Trimethoprim)	4 tablets twice daily for two consecutive days (Males & Females)	32	23	2	91.3
Terramycin (Oxytetracycline)	250 mg. i.m. + 1 G. orally in single session (Males & Females	) 20	15	2	86.7

plained of urethral/vaginal discharge alone. None were asymptomatic. Symptoms had been present for 1-3 days in 70 patients, 4-7 days in 30 patients and more than one week in the rest.

In the present study the following cure rates were obtained with different antibiotic schedules:— Penidure A.P. 95%, Minibiotic 100%, Septran 91.3% and Terramycin 86.7%. No untoward effects were noted during therapy with these drugs except for nausea and vomiting in two patients after treatment with doxycycline.

### Discussion

Several antibiotics including penicillin are highly effective in the treatment of gonorrhoea if given properly in required doses. Recently much evidence is accumulating to say that a large number of gonococcal strains have effective than repeated smaller doses.

Our study revealed that all purpose penicillin (penidure-A.P.) is highly effective in the treatment of acute uncomplicated gonorrhoea. The cure rate was 95%. No patient had any allergic manifestations. All the male patients received 2.4 M, units of penidure-A.P., in a single session and we observed one treatment-failure. All the female patients were treated with 4.8M. units of penidure A.P. and there was no relapse. Hence we feel that 4.8 M. units of Penidure-A.P., in either sex would be the ideal therapy for acute, uncomplicated gonococcal infection. Because of its low cost, low toxicity and high cure rate we feel that this is the drug of choice in parenteral therapy for acute gonococcal infection. Patients treated for gonorrhoea with 4.8 M. units of penicillin no longer require to have follow-up serological tests for syphilis. Hence additional advantage with penidure-A.P. is that it is not only useful in the treatment of gonorrhoea but also cures incubating syphilis. Gupta and Datta<sup>5</sup> observed 100% cure rate with all purpose penicillin in acute gonorrhoea.

Minibiotic (doxycycline) is an adequate alternative to penicillin in the treatment of acute gonococcal infection. This is the drug of choice in patients who are needle-shy or whenever penicillin is contraindicated. The cure rate observed with this drug was 100% in our study. Apart from nausea, and vomiting in two patients no severe untoward effects were noted with this Several workers studied the effect of doxycycline in acute gonorrhoea with different dosage schedules and observed good response<sup>8</sup>-11. limitations for this therapy are that it is expensive, contra-indicated in pregnancy and the clinical features of associated syphilis are masked.

Septran (Sulphamethoxazole-trimethoprim) is another useful oral remedy in the treatment of acute gonococcal infection. This drug was reported to be highly successful in acute gonorrhoea by several workers (Arya et al<sup>12</sup>, 98%; Kristensen and Form<sup>13</sup> 98.1%; Carroll and Nicol<sup>14</sup> 95.5%; and Svindland<sup>15</sup> 99%). Septran achieved 91.3% cure rate in our study. This drug is preferable in the treatment of gonorrhoea treponemicidal the antibiotics because it does not mask the classical symptoms of an accompanying syphilis<sup>15</sup>. However, the limitations for this therapy are its high cost and its safety is not established in pregnancy.

Our observations with terramycin (250 mg. 1.m + 1G. orally in a single session) revealed 86.7% cure rate. No untoward effects are observed with this

drug. The limitations for this therapy are: low cure rate, masking of concommitant syphilis and contra-indication in pregnancy.

## Conclusion

- Penidure-A.P. is the drug of 1. choice in parenteral therapy for acute gonococcal infection because of its low cost, low toxicity, high cure rate. Serological tests for syphilis are not required as this dose is sufficient to abort an incubating syphilis.
- 2. Minibiotic is an adequate alternative to penicillin and the drug preferable in oral antibiotic therapy because of its high cure rate.
- 3. Septran is also an effective oral antibiotic for acute gonococcal infection and preferable to treponemicidal drugs since it does not mask the features of concommitant syphilis.
- 4. Terramycin (250 mg. 1.m. + 1G. orally) is not advisable in the dosage used in the treatment of acute gonorrhoea because of its relatively low cure rate.

### Acknowledgments

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## REFERENCES

- 1. Gonorrhoea, Lancet, 1:675, 1968.
- Lightfoot Jr RW and Gotschlich EC: Gonococcal disease. Amer J med, 56: 347, 1974.
- Ramehander M and Ramamurthy KV: Acute gonorrhoea treated with tetracycline, Indian J Derm Vener, 31: 112, 1972.
- Yawaikar SJ, Kuchbal DS and Maradhekar BV: Doxycycline (Vibramycin) in acute gonococcal urcthritis, Brit J Vener Dis, 49: 464, 1973.

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- Gupta SK and Datta AK: Treatment of Acute uncomplicated gonorrhoea with all purpose penicillin, Ind J Derm, 24: 4, 1976.
- Krook G and Juhlin I: Problems in Diagnosis, Treatment and Control of Genorrhoeal Infection Acta Dermatovener, 45: 242, 1965.
- Rudolph A H: Control of Gonorrhoea. Guide lines for antibiotic treatment JAMA 220:1587, 1972.
- Enfors W and Eriksson W: Comparison of oral ampicillin and Doxycycline in treatment of uncomplicated Gonorrhoea Brit J Vener Dis, 51:99, 1975.
- 9. Moffett M, McCill M I, Masterton G et al: Doxycycline as a single dose oral treatment of gonorrhoea in women, Brit J Vener Dis, 48: 126, 1972.

- Shahidullah M: Single-dose treatment of uncomplicated gonorrhoea in males with minocycline, Brit J Vener Dis, 51: 97, 1975.
- Soltz-Szots J and Kokoschka E: Treatment of gonorrhoea with penicillin, cephaloridine and doxycycline, Brit J Vener Dis, 49:177, 1973.
- 12. Arya O P, Pearson C H and Weiner R B D: Treatment of gonorrhoea, with TMP/SMZ in Uganda, Brit J Vener Dis, 46:214, 1970.
- Kristensen K K and Form E: Trimethoprim sulphamethoxazole in gonorrhoea, Brit J Vener Dis, 51:31, 1975.
- 14. Carroll B R T and Nicol E S: TMP/SMZ in NGU and Gonorrhoea, Brit J Vener Dis, 46:31, 1970.
- Svindland H S: Treatment of Gonorrhoea with TMP/SMZ. Lack of effect on Concommitant syphilis, Brit J Vener Dis, 49:50, 1973.

# TRUE or FALSE?

Beta carotene has a beneficial effect on Erythropoietic protoporphyria (EPP), its effect being equal to that of Alpha tocopherol since both the agents trap free radicals and quenches singlet oxygen which is released as a result of the photosensitivity.

(Answer Page No. 292)