### Crystalline or Procaine Penicillin

**Q.**—*Which is the better preparation of penicillin for routine parenteral use—crystalline penicillin or a procaine penicillin? I have heard that the likelihood of the side-effects from the procaine in the procaine penicillin outweighs its advantages.*

**A.**—Arguments about the relative merits of the two preparations are usually based on theoretical considerations rather than on any observed difference in therapeutic potency. After an intramuscular injection of 600,000 units of procaine penicillin a bacteriostatic level in the blood is maintained for 24 hours as a rule, whereas after an injection of the same dose of crystalline penicillin the concentration in the blood rises to a much higher peak, but rapidly declines to a level which is too low to be assayed. The ability of procaine penicillin to maintain a significant blood-concentration over a prolonged period would suggest that it was the preparation of choice for prophylactic use—for example, as a protective screen for the patient with valvular disease of the heart who requires dental extraction. On the other hand, in the treatment of established infections the high initial concentration of penicillin in the blood achieved with the crystalline salt may facilitate penetration of the antibiotic into the diseased tissues, where high concentrations may be found many hours after the blood level has fallen to zero. In practice the injection of 500,000 units of crystalline penicillin twice a day gives satisfactory therapeutic results. Reports of alarming, even fatal, responses to the administration of procaine penicillin (probably due to inadvertent intravenous injection) should be viewed against the background of the millions of injections that have been given without mishap; the incidence of dangerous side-effects is far too low to justify condemnation of procaine penicillin on this score.

### Papaverine

**Q.**—*What are the actions of papaverine? Is it useful clinically in the treatment of disorders such as angina pectoris and essential hypertension? If so, please indicate dosage.*

**A.**—Papaverine is a feebly analgesic and narcotic alkaloid of opium which has a relaxing action on smooth muscle. The official preparation is papaverine hydrochloride, but it is also available as a sulphate and a nitrite. The usual dose is from 0.12 to 0.25 g. orally, but there are reports of as much as 1 g. being given intravenously without ill effect. Papaverine has been used extensively, especially on the Continent, in the treatment of angina, hypertension, and peripheral vascular disorders, but the effect is of short duration and the reports on its use are conflicting. It cannot be said to have any proved value in the treatment of these conditions.

### Alcoholic and Traumatic Amnesia

**Q.**—*Is it possible to differentiate between the amnesias due to head injury and alcoholic excess by the use of thiopentone or methylamphetamine?*

**A.**—It should be possible to go some way towards clearing up an amnesic gap by investigation under intravenous thiopentone; and in some cases intravenous methylamphetamine might be tried as an alternative, though with much less prospect of success. Ordinary hypnosis will also sometimes succeed. Such measures should be completely successful in an amnesia solely due to hysterical dissociation, unless the patient is uncooperative. But with organically caused amnesias, though some forgotten events may be recalled, an irreducible minimum of amnesia usually remains. In this case it is presumably desired to explore the amnesia as a differential diagnostic method, to decide how far it might be caused by trauma or by alcohol. If the patient was in a deep alcoholic stupor he would be just as unconscious as after a severe concussion. In both cases, therefore, there might be equally good reasons for a permanent and irreducible amnesic gap. The principal prospect of a thiopentone investigation would then be to fill in the story as far as possible, and in the light of a better knowledge of the circumstances so gained it might be possible to decide whether alcohol or trauma was implicated.

## NOTES AND COMMENTS

**Allergic Rhinitis.**—Dr. MORRIS CUTNER and Dr. B. S. SWEETMAN (Chelsea, S.W.3.) write: May we supplement the answer under the above heading ("Any Questions?" February 7, p. 347) by quoting our experience? During the past 18 months or so we have submitted seven patients suffering from this condition to a course of histamine ionization. Of these, three have apparently been cured, two have been markedly improved, one (who incidentally has been relieved of her asthma) has not yet responded favourably, and one did not benefit. The numbers are small, but the clinical impression is significant. The only snag is that as each treatment aims at a general reaction it should (as in our cases) be carried out only by a competent therapist under direct medical supervision. As the patient in question derives some benefit from antihistamine drugs she would very likely benefit by this therapy. We hope to submit an article shortly giving clinical and other reasons for this belief.

OUR EXPERT writes: I have no personal experience of histamine ionization, but zinc ionization will help about half those with allergic rhinitis.

**Night Starts.**—ANOTHER DOCTOR writes: I was interested to read your correspondent's account of night starts in his legs following transverse myelitis (February 14, p. 414). I too have a spastic paralysis of both legs from a transverse myelitis. I observe that the degree of spasticity in my legs varies with the state of my large bowel. If I allow myself to become constipated the legs become much worse: if, on the other hand, the bowel is irritated with too much laxative the spasticity increases also. There is no doubt in my mind that these "kickings" of the legs are the result of an incoordination of large bowel peristalsis causing localized sections of the bowel to become dilated with flatus, and that they are motivated through a spinal reflex arc, the inhibitory impulses of the cerebral cortex having been cut off by the pyramidal lesion at the level of the myelitis. It is probable that air-swallowing during sleep is a factor in producing pockets of gas in the incoordinated large bowel. If I avoid flatus-forming foods the severity of the spasticity diminishes and vice versa. Weather conditions also have a very noticeable effect on the spasticity and "kicks," and it may well be that the lowering of the atmospheric pressure produces increased intra-abdominal pressure from the expansion of the flatus contained in the bowel.

**Corrections.**—In the obituary notice of Dr. Harold Balme (*Journal*, February 28, p. 511) we mistakenly recorded that he had only one son. In addition to Mr. David Mowbray Balme, Principal of the University College of the Gold Coast, Dr. Balme had another son, Dr. Harold Wykeham Balme, and two daughters.

In the appreciation of the late Sir William Douglas in last week's *Journal* (p. 513) he was wrongly described as Parliamentary Secretary to the Ministry of Health. Sir William's post was that of Permanent Secretary.

Dr. M. H. ARMSTRONG DAVISON writes: At the recent R.S.M. meeting on "Hypotension in Anaesthesia" (see February 28, p. 504), I stated that there had been only one death "on the table" in the last 60,000 anaesthetics given at the Royal Victoria Infirmary, Newcastle-upon-Tyne. I have subsequently discovered that there were in fact two such deaths.

The dose of L-thyroxine given in the second paragraph of the summary of the paper by Russell Fraser and M. Wilkinson in our issue of February 28 (p. 484) should read 0.1 mg. thrice daily, and not 1 mg.

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