

seemed to show a greater response to glucose challenge than the other female groups. The numbers in the present group are too small for the significance of this observation to be assessed, and further study is required. It is possible that the diabetic with lens opacities may progress to a stage requiring cataract extraction more rapidly than a non-diabetic. This might explain the discrepancy between the lack of correlation in this survey and the reports of increased prevalence of diabetes in patients admitted for cataract extraction.

### Summary

The prevalence of diabetes in a sample of 340 persons of the general population of the Rhondda Fach was not found to differ in persons with and without lens opacities.

Persons with and without lens opacities show no significant difference in blood-sugar response to glucose challenge. Females with lens opacities show a greater response to glucose challenge than males with lens opacities.

It would appear that diabetes is not such an important cause of lens opacity formation in the general population as was previously thought, but persons with a diabetic tendency may develop lens opacities progressing to a stage requiring cataract

extraction more rapidly than non-diabetics. Further studies to investigate this point are in view.

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## Preliminary Communications

### Treatment by Prostatic Injection of Acute Urinary Retention due to Prostatic Hyperplasia

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Adenomatous enlargement of the prostate may lead to distressing urinary symptoms and progressive damage to the urinary tract by interference with the flow of urine. The orthodox treatment of this abnormal prostatic enlargement is to remove a portion of it via the suprapubic, retropubic, or transurethral route. The operation may be described as major, particularly if the patient is aged and has a bad chest or heart, is in a uraemic state, or the urinary tract is badly infected.

A simple injection treatment to relieve retention of urine due to adenomatous enlargement of the prostate was used by Sir James Roberts in India, and this method was used by Talwar and Pande (1966) with remarkable results. In this technique the prostate is injected through the perineum with 2 to 3 ml. of solution containing the following ingredients: carbolic acid 10 min. (0.6 ml.), glacial acetic acid 10 min. (0.6 ml.), glycerin 20 min. (1.2 ml.), distilled water to 1 oz. (28 g.). This solution is sterilized by autoclaving for 15 minutes at a pressure of 15 lb./sq. in. (1.05 kg./sq. cm.), but alternatively can be sterilized by boiling for half an hour.

The composition of the solution suggests the possibility of complications occurring, such as abscess formation, fistula, and stricture of the urethra. In the series described by Talwar and Pande no such incidents occurred. This paper describes a series of patients similarly treated.

### MANAGEMENT

The patients were admitted with acute or acute on chronic retention of urine. The history, clinical examination, and

laboratory and radiological investigations were undertaken in the routine manner. The retention of urine was relieved immediately or gradually, depending on the diagnosis of acute or acute on chronic retention.

The prostate was injected during the first three days in hospital, the following technique being used: The patient was placed in the left lateral position and the prostate injected with 2 to 3 ml. of the solution, a 20-gauge lumbar puncture needle being used. A preliminary injection of local anaesthetic was made in only one of our patients. The injection is not painful. A finger placed in the rectum acts as a guide. The needle point requires repositioning if pain is felt down the penis or blood can be aspirated into the syringe. If no resistance

### Details of Cases

Case No.	Age	Coincident Diseases	No. of Injections	Month During 1966	Complications	Last Seen
1	81	Brain-stem ischaemia	1	July	Nil	February 1967
2	80	Emphysema, hypertension	2	June	"	" "
3	72	Bronchitis, emphysema	1	Nov.	"	" "
4	73	Cardiac failure	1	July	"	January 1967
5	85	Cardiac failure, emphysema	1	June	"	February 1957
6	77	Cardiac failure, bronchitis	1	"	"	Died of heart failure. August 1966
7	75	Endogenous depression	3	Nov.	"	February 1957
8	87	Bronchitis, emphysema	6	May	"	January 1967
9	67	Myocardial infarction, emphysema, bronchitis	1	Aug.	"	December 1955
10	83	Hypertension	1	"	"	"
11	71	Emphysema, ? carcinoma of lung	2	"	"	January 1967
12	55	Nil	1	Jan.	"	"
13	76	Parkinson's disease, pneumonia, poor urinary control	4	Nov.	Poor urinary control Nil	February 1967
14	54	Carcinomatosis	2	Sept.	"	Died of secondaries. November 1966
15	72	Cardiac failure	2	Oct.	"	Died of heart failure November 1966
16	77	Bronchopneumonia	3	Dec.	"	February 1967
17	86	Chronic bronchitis, perforated diverticulitis	2	Nov.	"	"

to the injection is encountered the needle tip may have been in the bladder; it is then withdrawn.

Details of the cases are given in the Table. No patient who started micturition after removal of the catheter was included in the series.

#### DISCUSSION

The intraprostatic injection therapy has opened up a new technique in the management of adenomatous enlargement of the prostate. The *modus operandi* of this relief is unknown. The rational fear of prostatic abscesses or urethral strictures appears to be unfounded. Abnormal vesical conditions, such as stones, bladder tumours, etc., are manifest contraindications.

The patients chosen initially for this treatment were unfit for general anaesthesia because of their poor general condition, and were confronted with some form of protracted tube drainage. Some of the patients had already started this unpleasant regimen. It is noted that after 11 months of catheter drainage one patient returned to normal urinary flow and has since married.

The part played by this treatment appears to be the relief of urinary retention, particularly in the older patients suffering from other serious disabilities. It remains unknown if the process of progressive enlargement of the prostate with increasing renal obstruction can be reversed or held stationary by this method.

The dramatic effect in the relief of retention observed in the series so far described suggests that this is a strong possibility.

In one patient, whose prostate was removed after two injections, the following changes occurred: "There are scattered interstitial haemorrhages with a few necrotic areas. Thrombosis of veins are noted, some of which are organizing."

The employment of this technique continues.

#### SUMMARY

Seventeen patients with retention of urine due to adenomatous prostatic enlargement were treated by direct injection of the prostate with a special solution. Micturition was resumed in all the patients. The average age of those treated was 74; the number of injections ranged from one to six, with an average of approximately two.

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## Medical Memoranda

### Herpes Simplex Virus Encephalitis Treated with Idoxuridine

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#### CASE REPORT

An unmarried woman aged 41 with severe encephalitis had apparently been well until 18 September 1965, when she had a transient period of confusion which cleared after some hours. She then remained well and continued to work as a pork butcher for 10 days, when she complained of headache, rapidly followed by nausea and vomiting, and then had a single epileptic fit. Thereafter she became progressively more drowsy and less accessible, and on 30 September was admitted to a hospital in Cork. She was found to be drowsy but co-operative, with mild photophobia and meningism, bilateral ptosis, no other neurological deficit or papilloedema, a pyrexia of 100.2° F. (37.9° C.), and peripheral blood leucocytosis of 12,400. Lumbar puncture revealed clear C.S.F. under a pressure of 200 mm., containing 7 cells, mainly lymphocytes, with protein of 40 mg./100 ml. Bacteriological culture was negative. Because her level of consciousness continued to deteriorate without the development of localizing signs but with an increase in C.S.F. cell count to 130 lymphocytes and C.S.F. protein to 140 mg./100 ml., she was transferred to the Radcliffe Infirmary on 5 October for further investigation to exclude the presence of an intracranial space-occupying lesion of infective origin.

On admission she was in a state of muttering delirium with pyrexia of 102° F. (38.9° C.), mild meningism, no papilloedema, and normal pupillary size and reactions. There was no facial weakness and she moved all four limbs in response to painful stimuli. The tone of all limbs was variably increased; the tendon jerks were uniformly depressed, with bilateral extensor plantar responses. Overnight her condition altered slightly in that a minimal right facial weakness became evident and persistent right-sided hypertonus with hyperreflexia developed in her limbs. An E.E.G.,

however, showed only generalized slow-wave abnormality, and a left carotid angiogram was unremarkable except for slight displacement of the pericallosal artery to the left of the midline. Lumbar puncture was repeated and an air ventriculogram was then done via biparietal burr-holes; needle biopsy specimens of both parietal lobes were taken for virus culture, and both lateral ventricles were cannulated, specimens of clear C.S.F. being obtained from both sides. The air-contrast study was normal. The ventricular C.S.F. contained 8 cells/cu. mm. and 50 mg. of protein/100 ml., while the lumbar C.S.F. contained 80 cells/cu. mm. and 200 mg. of protein/100 ml.

The brain biopsy specimens and samples of right ventricular and lumbar C.S.F. were refrigerated overnight at 4° C., and next morning were inoculated into tissue cultures of primary human amnion and secondary monkey kidney. Lesions typical of herpes simplex were seen 24 hours later in the amnion cultures inoculated with the fluid from the right lateral ventricle. No virus was recovered from cultures of the brain and lumbar C.S.F., nor from throat swab or faeces. Complement-fixing and neutralizing antibody titres for herpes simplex virus were 1:64 and 1:256 respectively in blood collected the third day after the patient's admission; both titres rose twofold in the subsequent 14 days, and three months later had returned to the initial level.

Clinically her condition remained unaltered and when the positive virus culture was obtained it was decided to begin treatment with idoxuridine on 9 October—that is, on the 11th day after the onset of her acute symptoms. Though there was some left-hemisphere predominance, the clinical features left no doubt that both hemispheres were involved. It was thought that intracarotid perfusion was the most certain method of reaching the affected tissues. As the possible effects of idoxuridine on the cerebral tissue when given by direct intra-arterial perfusion were not known, and as it was necessary to maintain continuous cannulation of a major vessel for some days with the associated hazards of embolus formation from intravascular thrombosis, it was thought preferable to cannulate the right carotid artery in the first instance. Percutaneous puncture of the right internal carotid artery was carried out under radiological control and a polyethylene cannula inserted, radiographs being taken