

## MALE URETHRAL SMEARS IN MENTAL DISORDERS.

(A preliminary communication.)

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IN a recent communication Andrews(1) claims that smears made from the end of the urethra of sexually immature or impotent males differ markedly from the smears obtained from a normal potent male.

The classical researches of Mott demonstrated the existence in many cases of dementia praecox of some degree of testicular atrophy. These observations have been recently confirmed by Hemphill, Reiss and Taylor(2), using a method of biopsy. It appeared, therefore, that the smear method might give information when a series of mental hospital cases were investigated.

Inasmuch as the previous work dealt chiefly with schizophrenics, it was thought that we were more likely to obtain results of value if all cases of conduct disorder in a mental hospital were investigated, without any attempt at more than provisional classification and none at selection of the cases.

A urethral smear was obtained, using a platinum loop, from the terminal  $\frac{1}{2}$  cm. of the male urethra, and the smear, spread on a microscope slide, was stained by the Giemsa method. A drop of water on the slide was found to facilitate the preparation of the smear. Each slide was distinguished by a number only, and no comparison between clinical state and microscopic finding was made until the final assessment.

We have attempted a rough classification of the cell types encountered, but we wish to emphasize that our classification has no other justification than the pragmatic one that it allows practically all the normals to be grouped together, whilst a large number of the cases of mental disorder belong to groups excluded from this normal grouping. Beyond this we are not prepared to go. Our grouping in no way predicates any developmental or other relationship between the cell types. In every smear from a normal subject the types of cell shown on the Plate may be found.

In the smears from normal cases A and AB predominate. In the abnormal types, found frequently in our cases of mental disorder, B and BB predominate.

TABLE I.—*Classification of Clinical Types.*

Class.	Number.	Group A—AB.	Group B—BB.
Normals . . . . .	46	44 (95.6%)	2 (4.3%)
Schizophrenics . . . . .	147	81 (55.1%)	66 (44.9%)
Secondary dementias . . . . .	59	31 (50.8%)	28 (49.2%)
Delusional . . . . .	47	28 (59.7%)	19 (40.3%)
Melancholic . . . . .	15	7 (46.6%)	8 (53.4%)
Epileptic insanity . . . . .	21	13 (61.9%)	8 (38.1%)
Mental defectives . . . . .	36	23 (63.8%)	13 (36.2%)

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It is obvious that our results might easily lead to a false interpretation if age bore any relation to the presence or absence of abnormal smears. We decided that our best method would be to take all those groups of cases in which the incidence of abnormal smears was about the same, and it was found that the age-group to which the patient belonged bore no relation to the frequency of an abnormal smear. None of the patients, however, fell into an age-group above eighty-five.

No further speculation as to the meaning of the above findings is offered at this stage. It is planned to carry the investigation further into ketosteroid estimations, when additional information may aid in interpretation.

The majority of the cases of mental disorder were investigated by two of the authors at the Gloucester Mental Hospital by kind permission of the Superintendent, Dr. Logan. Another series was investigated at Tone Vale Mental Hospital by kind permission of Dr. K. C. Bailey. The microscopy and assessment, together with the obtaining of normal records, was done at the Burden Neurological Institute, to whose Director (Prof. F. L. Golla) the authors are deeply indebted for his stimulating advice and criticism.

#### REFERENCES.

- (1) ANDREWS (1946), "Simple Test for Hormone Deficiency in the Male," *J. Clin. End.* **6**, No. 7, 516.
- (2) HEMPHILL, REISS and TAYLOR (1944), *J. Ment. Sci.*, **90**, No. 380, July.