

# COMPARATIVE STUDY OF THE KAHN AND WASSERMANN REACTIONS FOR SYPHILIS \*

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Recently Kahn<sup>1</sup> proposed a precipitation reaction for syphilis for which he claims a high degree of sensitiveness and specificity, combined with simplicity and ease in manipulation. These claims led us to investigate this reaction, and this paper will present a preliminary report of our findings. The Wassermann test was carried out with a sheep-cell system and guinea-pig complement. Two antigens were used on each case. One an absolute alcohol extract of human heart muscle, reinforced with 0.4 per cent. cholesterin, and the other acetone insoluble lipoids with cholesterin, proposed by Kolmer.<sup>2</sup> The fixation period was from sixteen to eighteen hours in the icebox.

## RESULTS OF REACTIONS

Wassermann Reaction	Kahn Reaction
296..... + + + + .....	250
25..... + + + .....	35
28..... + + .....	64
349...Total of more than + + positive.....	349
11..... + .....	11
36..... ± .....	63
396..... + and ± included.....	423
1,769..... — .....	1,742
2,165.....Grand Total.....	2,165

The serums were obtained from unselected cases from this hospital, the University Hospital and various state asylums of Michigan. The serums were separated from the clots by centrifugation and were used, as a rule, within twenty-four hours after reaching the laboratory.

Altogether, 2,165 serums were examined with the Kahn and Wassermann reactions. As indicated in the accompanying table, the results of the reactions are identical when more than two plus positives are counted.

\* From the Laboratory of the State Psychopathic Hospital, University of Michigan.

1. Kahn, R. L.: Simpler Quantitative Precipitation Reaction for Syphilis, Arch. Dermat. & Syph. **5**:570 (May) 1922; *ibid.* **5**:734 (June) 1922.

2. Kolmer, J. A.: Am. J. Syphilis **6**:74 (Jan.) 1922.

## CONCLUSION

The value of the Kahn precipitation reaction is almost as great as that of the Wassermann reaction on the blood serum. This reaction is now being performed as a check on the Wassermann reaction on all serums sent to this laboratory for examination. The relative ease with which this reaction can be carried out leads us to believe that it will attain wide usefulness in many laboratories. A point particularly in favor of the Kahn reaction is that anticomplementary serums give no difficulty with it. Such serums are either positive or negative, depending in the presence of syphilitic reagin. While this test worked very well on the blood serum, it does not, however, work as well on the spinal fluid as does the Wassermann test. It is believed by the writers on this subject that in the very near future this drawback will be overcome by some worker who will cast light on the matter.