Vi coli in Various Kinds of Disease.

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In the cases, which might be clinically diagnosed as ekiri but neither dysentery bacillus nor ekiri bacillus was not found out, only the coli bacillus has been often detected from the feces. It seemed to us desirable to investigate in such a case whether it is Vi coli* or not. While it was far from having established any causal relationship between the ekiri-like symptoms and Vi coli, we were able to detect Vi coli in some other kinds of disease.

Method: From feces, urine, blood, purulent matter and inflammatory secretion coli strain was tried to isolate by means of Endo’s culture medium, and then of a common agar culture. Then it was identified by means of Gram’s coloration, movement, ability of decomposing glucose, lactose, saccharose and sulcit, ability of coagulating milk, formation of indole and agglutination towards the coli immune serum.

The antigen analysis of coli strain was done soon after isolating by means of the object glas agglutination towards the Vi-serum of Salmonella typhi and towards the O- and H-factor serum of Salmonella.

Data:

Ekiri: Only one strain was Vi coli among 14 samples, isolated from 14 children suffered from ekiri-like symptoms, from whom neither dysentery bacillus nor ekiri bacillus was not obtainable.

Acute enteritic diseases: 20 adult cases were examined; no Vi coli was found in feces.

Cystitis and pyelitis: No Vi coli was detected in the urine of 8 patients.

Uterus diseases: 27 cases were tested of the cervical secretion, and Vi coli was noted in a single case.

Acute appendicitis: Coli bacillus was isolated from each piece of the gangrenous appendix, 8 in number, and two were Vi coli. In 16 cases

* The notation “Vi coli” indicates the coli strain with the Vi-antigen, i.e. the Vi-Salmonella antigen.
of the appendicitis catarrhalis acuta and the perityphitic abscess 13 coli strains were isolated. Vi coli was obtained from a perityphitic abscess, but the coli bacillus isolated from the feces of that patient had no Vi-antigen. This case became later worse.

Coli sepsis: We came to observe a case of the sepsis caused by the coli bacillus, but the strain was not Vi coli.

Control experiments: 20 coli strains obtained from healthy persons had no Vi-antigen.

At terminal it must be mentioned Vi coli, above given, 5 in number, almost lost the Vi-antigen about 2 weeks after the isolation. And our Vi coli strain had neither factor of O- nor H-Salmonella antigen, in contrast to the Salmonella antigen, in contrast to the Salmonella coli, found by Kauffmahn.1) About 1 1/2 year had passed after the isolation, when we tried again the antigen analysis of these 5 Vi coli strains. At that test we found that 2 strains of them completely lost the Vi-antigen and newly presented the XXVI-factor of O-Salmonella antigen, which had been never proved. Such change of the antigenic structure is identical with the V→W change of Salmonella typhi.

**Summary.**

Vi coli was found in various kinds of disease, viz. ekiri, endometritis, and gangrenous and non-gangrenous appendicitis, but rather infrequently. The coli bacilli, isolated from healthy person, and those suffered from the acute enteritis, pyelitis or cystitis, and coli sepsis had no Vi-antigen. It seems to be justified to say some significance of Vi coli upon the severeness of illness. Our Vi coli presented the V—W change about 1 1/2 year after the isolation.

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**Literature.**