

波蘭的志賀氏菌病的病原學問題*†

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在本文內所報告的資料是四年來在伏洛茨拉夫的波蘭志賀菌中心所進行的系統研究結果, 這些研究的目的是為了查明在波蘭的痢疾致病原都是那些型的志賀氏菌。

在 1953 年 2 月開始向全波蘭的細菌學檢驗室徵求其所分離的志賀氏桿菌株和疑似屬於志賀氏菌屬的未能鑑定菌株。從 1953 年 3 月起, 我們就經常收到全國各地送來的菌株, 因此本文內的資料可以認為是反映了全波蘭的情況。

所得到的菌株是由病人和帶菌人的糞便中培養出的, 有一些菌株是在對同一個人進行了反復的檢查後分離得的。

在所得到的材料中, 有 13,994 株根據其培養、生化和血清學性質屬於志賀氏菌屬 (*Shigella*), 其中 1953 年有 1,785 株, 1954 年有 2,367 株, 1955 年有 5,482 株, 1956 年前三個季共有 4,360 株, 對於這些菌株的血清學檢查是在分離後幾天到幾個星期內用按照我們的方法^[1] 製備的血清進行的。

本文內所用的命名是按照國際微生物學者協會腸系菌分組委員會的志賀氏菌委員會^[2] 所建議的命名法所定的。

此項研究的結果列於表 1 及表 2。

表 1 各型志賀氏菌的百分率

年 份	1953	1954	1955	1956
檢查菌株數	1,785	2,367	5,482	4,360
<i>Sh. dysenteriae</i>	0.3%	0.2%	1.1%	0.3%
<i>Sh. flexneri</i>	83.6%	79.9%	65.4%	76.6%
<i>Sh. boydii</i>	0 %	0 %	0 %	0 %
<i>Sh. sonnei</i>	15.9%	19.8%	33.4%	23.0%

* 1956 年 11 月 27 日收到。

† 本文是 1956 年 10 月 5 日 S. Slopek 教授在北京對中國微生物學會會員所做報告的一部分。

對於表 1 內的研究結果的分析指出在所調查的時期中, *Shigella flexneri* 是最主要的痢疾病原菌。*Shigella sonnei* 的百分率次之。在這期間福氏痢疾菌的百分數經常的降低,而未內氏痢疾菌的百分數增高,這種現象在波蘭的某一些地區特別明顯。

Shigella dysenteriae 1 (志賀氏痢疾桿菌) 和 *Sh. dysenteriae* 2 (史密次氏痢疾桿菌) 在菌株總數中的百分率僅佔微小部分。志賀氏痢菌僅在波蘭的東部發現。

在 1953—1956 年間未在波蘭發現 *Sh. boydii* 和 *Sh. dysenteriae* 第 3 至第 7 型 (Large-Sachs 氏羣)。

表 2 各型 *Sh. flexneri* 的百分率

年 份	1953	1954	1955	1956
<i>Sh. flexneri</i>				
1a 型	1.1	0.5	1.2	1.3
1b 型	3.5	5.6	3.4	7.7
2a 型	80.2	80.6	70.6	62.1
2b 型	*	*	8.0	12.8
3 型	8.0	6.9	5.9	6.7
4a 型	5.1	4.5	6.5	6.2
4b 型	*	*	0.2	0
5 型	0	0	0	0
6 型	0	0.1	0.5	0.2
X 變種	0.7	0.5	2.4	1.9
Y 變種	1.3	1.2	1.3	0.9

* 未檢查。

表 2 所列的結果指出在這個時期內福氏痢疾菌第 2a 型是最常見的痢疾病原菌;第 1b 型,第 2b 型,第 3 型和第 4a 型較少,而第 1a 型,第 4b 型,第 6 型 X 和 Y 變種更少。在波蘭的東南部則第 2a 型的百分率僅約佔分離出菌株總數的一半,而在該地區第 1b,第 3 和第 4a 型的百分率則較其他地區為高。在所有檢查過的菌株中未發現福氏痢疾菌第 5 型。所分離的第 6 型菌株包括了該型中所有的三個生物化學類型 (Manchester 類型, Newcastle 類型及 Boyd 88 類型)。

(方 綱譯)

參 考 文 獻

- [1] M. Metzger, I. Rudnicka; Diagnostyczne surowice czerwonkowe. *Med. Dosw. Mikrobiol.* 3: 221, 1955.
- [2] Recommendations of the *Shigella* commission (*Enterobacteriaceae* subcommittee) on the nomenclature and classifications of the dysentery bacilli. *International Bulletin of Bacteriological Nomenclature and Taxonomy*; 4: 1, 1954.

ETIOLOGICAL ASPECTS OF SHIGELLOSIS IN POLAND*

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(ABSTRACT)

The data presented in this paper are the result of systematic investigations, being carried out for four years in the Polish *Shigella* Centre in Wroclaw. Their purpose is to establish which types of *Shigella* occur in Poland as an etiological agent of dysentery.

In February 1953, all bacteriological laboratories in Poland were requested to send in isolated dysentery strains or unrecognised strains suspected of belonging to the *Shigella* group. Since March 1953, we have been obtaining regularly dysentery strains from different centres scattered throughout the country, so that the present data may be considered as reflecting conditions prevailing in the whole of Poland.

The strains obtained were cultured from the faeces of patients as well as from that of carriers, some of the strains being isolated from the same persons in the course of repeated examinations.

Among the material available, 13994 strains were found, on the basis of their cultural, biochemical and serological properties, to belong to the *Shigella* group, namely: 1785 in 1953, 2367 in 1954, 5482 in 1955 and 4360 in the first three quarters of 1956. Serological studies on these strains were performed some days or weeks after isolation using sera, prepared according to our methods^[1].

The nomenclature used in the present paper is in agreement with the recommendations of the *Shigella* commission (*Enterobacteriaceae* subcommittee) of the International Association of Microbiologists^[2].

The results of the investigations are given in Tables I and II.

The analysis of the data in Table I shows that *S. flexneri* proved to be, at the time of investigation, the predominant agent in the etiology of dysentery. Next as to incidence was *S. sonnei*. A constant decrease in the percentage of *S. flexneri* and an increase of *S. sonnei* is conspicuous during this period. This phenomenon is especially pronounced in some regions of Poland.

S. dysenteriae, type 1 (*S. shigae*) and 2 (*S. schmitzi*) constitute but a slight percentage of the total number of strains. *S. shigae* was found only in east regions of our country.

In the years 1953 to 1956 no *S. boydii* or *S. dysenteriae*, types 3-7 (Large-Sachs group), were isolated in Poland.

*This paper is a part of the lecture delivered by S. Slopek before the Chinese Microbiological Society in Peking, Oct. 5, 1956.

Table I
Incidence of *Shigella* subgroups (in percent)

Year	1953	1954	1955	1956
Number of strains investigated	1785	2367	5482	4360
<i>S. dysenteriae</i>	0,3	0,2	1,1	0,3
<i>S. flexneri</i>	83,6	79,9	65,4	76,6
<i>S. boydii</i>	—	—	—	—
<i>S. sonnei</i>	15,9	19,8	33,4	23,0

The data contained in Table II show that *S. flexneri* of type 2a was, during this period, the most frequent causative agent of dysentery; types 1b, 2b, 3 and 4a were rarer and types 1a, 4b, 6, variant X and Y—the rarest. Only in south-eastern regions *S. flexneri* 2a constituted scarcely a half of the isolated strains of this subgroup, whereas the percentage of types 1b, 3 and 4a was higher than in the remaining regions. No *S. flexneri* of type 5 was found among the investigated strains. The isolated strains of type 6 were found to belong to all three biochemical varieties of this type (Manchester bacillus, Newcastle bacillus and Boyd 88).

Table II
Incidence of *S. flexneri* types (in percent)

Year	1953	1954	1955	1956
<i>S. flexneri</i> types				
1a	1,1	0,5	1,2	1,3
1b	3,5	5,6	3,4	7,7
2a	80,2	80,6	70,6	62,1
2b	·	·	8,0	12,8
3	8,0	6,9	5,9	6,7
4a	5,1	4,5	6,5	6,2
4b	·	·	0,2	—
5	—	—	—	—
6	—	0,1	0,5	0,2
Variant X	0,7	0,5	2,4	1,9
Variant Y	1,3	1,2	1,3	0,9

· Means "not investigated".