

A Report on the Salmonella Cultures Isolated in Korea (1975)

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1975年度 韓國에서 分離된 살모넬라 菌에 關한 報告

國立保健研究院 살모넬라센터

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1975年度 1年間 各 市道 衛生試驗所와 保健所 및 綜合病院等에서 檢査 의뢰된 檢體 2033件中에서 436株의 Salmonella 菌屬을 分離 同定하였다.

同定된 436株中에서 Salmonella typhi 가 426株로 대부분을 차지하고 있었으며 그 外의 Salmonella 菌株 가 10株이 있는데 이들을 serotype 別로 나누어 보면 다음과 같다.

Salmonella A	Salmonella paratyphi A	2 주
Salmonella B	Salmonella paratyphi B	3 주
	Salmonella derby	1 주
	Salmonella typhimurium	2 주
Salmonella C	Salmonella narashino	1 주
Salmonella D	Salmonella typhi	426 주
Salmonella E	Salmonella senftenberg	1 주

抗生物質에 對한 感受性結果는 Table 3 과 같고, 18개의 種類의 抗生製가 시험되었다.

INTRODUCTION

The authors identified 436 cultures of Salmonella among 2033 suspectable enteric pathogens collected from the eleven provincial & city health laborator-

ies and some hospital laboratories in order to be bacteriologically confirmed in the Korean National Salmonella Center in 1975.

Of 436 cultures two belonged to the Salmonella paratyphi A, three to the Salmonella paratyphi-B, one to the Salmonella derby, two to the Salmonella typimurium, one to the Salmonella narashino, four hundred twenty six to the Salmonella typhi, and the rest one to the Salmonella senftenberg.

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The geographical distribution was analyzed, and

Table 1. Biochemical properties of Salmonella cultures tested in 1975

Types	Salmonella typhi		Salmonella other than salmonella typhi	
	sign	% +	sign	+ numbers / - numbers
Hydrogen sulfide	+W	100	+	7 / 2
Urease	--	0	--	0 / 9
Indol	--	0	--	0 / 9
Methyl red	+	100	+	9 / 0
Voges-proskauer	--	0	--	0 / 9
Citrate (simmons)	--	0	d	8 / 1
K C N	--	0	--	0 / 9
Motility	+	100	+	9 / 0
Gelatin liquefaction	--	0	--	0 / 9
Lysine decarboxylase	+	100	+	7 / 2
Arginine dihydrolase	d	78.9	+or(+)	7 / 2
Ornithine decarboxylase	--	0	+	9 / 0
Glucose acid	+	100	+	9 / 0
gas	--	0	+	8 / 1
Lactose	--	0	--	0 / 9
Sucrose	--	0	--	0 / 9
Mannitol	+	100	+	9 / 0
Dulcitol	-or(+)	0	d	9 / 0
Salicin	--	0	--	0 / 9
Adonitol	--	0	--	0 / 9
Inositol	d	0	d	6 / 3
Sorbitol	+	89.4	+	9 / 0
Arabinose	--	9.6	+or(+)	8 / 1
Raffinose	--	0	--	0 / 9
Rhamnose	--	0	+	9 / 0
Phenylalanine deaminase	--	0	--	0 / 9
Malonate	--	0	--	0 / 9
Jordan's tartrate	+	92.1	+or--	1 / 8
Sodium alginate	--	0	--	0 / 9
Maltose	+	100	+	9 / 0
Xylose	+	46.6	+	7 / 2
Trehalose	+	100	+	9 / 0
Nitrate to nitrite	+	100	+	9 / 0
Oxidation-fermentation	F	100	F	100
Oxidase	--	0	--	0 / 9
Catalase	+	100	+	9 / 0

W : weak

() : delayed reactions (three or more days)

the biochemical and serological properties were tabulated in addition to the results summarized from the drugs sensitivity tests in this paper.

METHODS

All cultures were tested according to the manual published by USCDE. The sensitivity of the cultures to antimicrobial drugs were observed by means of Ericsson's disc methods using eighteen kinds of drugs.

RESULTS

1) Four hundred thirty six *Salmonella* cultures were identified among which two cultures group A, six cultures of the group B, one culture of the group C, four hundred twenty six of the group D, and one culture of the group E were classified by

the National Institute of Health, Korea, from 2033 susceptible enteric pathogens isolated in 1975.

2) No cultures of *Salmonella* were confirmed among the specimens sent from Che ju province as shown in Table 3.

3) The results of the physical and biochemical tests on the *Salmonella* cultures showed typical characteristics as listed in the textbooks and some variable responses were summarized in Table 1.

4) The sensitivity patterns to antimicrobial drugs of *Salmonella* cultures were summarized in Table 2.

SUMMARY

The authors identified 436 *Salmonella* cultures, which were 426 *Salmonella typhi* and ten cultures of other serotypes among 2033 susceptible enteric pathogens collected from all over the country in 1975.

Table 3. *Salmonella* serotypes isolated from different provinces

Provinces	S. para-typhi A	S. para-typhi B	S. derby	S. typhimurium	S. narashino	S. typhi	S. senftenberg	Total
Seoul						95		95
Busan		1				32	1	34
Kyunggi						9		9
Kangwon			1	2	1	54		58
Chungbuk		1				74		75
Chungnam						54		54
Cheonbuk	2	1				54		57
Cheonnam						12		12
Kyungbuk						4		4
Kyungnam						33		33
Cheju								
Total	2	3	1	2	1	426	1	436

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