CROSS-CANADA DISEASE REPORT

RAPPORT DES MALADIES DIAGNOSTIQUÉES AU CANADA

Quebec

Distribution of *Streptococcus suis* capsular types 9 to 22 according to the site of isolation

Fourteen new capsular types of *Streptococcus suis* have been described recently (1), but data about their relative importance are very rare. The aim of this communication is to show the origin of 118 isolates of *S. suis* belonging to these new capsular types recovered from diseased pigs, and of two isolates recovered from diseased cattle (Table 1). These isolates were received for serotyping from diagnostic laboratories in Quebec, from different provinces of Canada and from other countries, for serotyping.

Capsular types 9 and 22 were the most commonly identified, with 35 and 26 isolates respectively. Of these, 20 isolates of capsular type 9 and 12 isolates of capsular type 22 were associated with meningitis and/or septicemia. These capsular types have rarely been isolated from clinically healthy pigs (unpublished observations). Most of the few isolates belonging to capsular types 17, 18, 19 and 21 were recovered from lungs, and in association with other pathogens, mainly *Pasteurella multocida*. These four capsular types used to be isolated, almost exclusively, from the nasal cavity of clinically healthy pigs (unpublished observations). Of four isolates of capsular type 14, three originated from meninges and/or brain. Interestingly, the reference strain of this capsular type originated from a case of meningitis in humans (1). None of the isolates belonged to capsular type 20.

On isolate of capsular type 9 and one of capsular type 16 were isolated from lungs of cattle. All other isolates of capsular type 16 were recovered from cases of pneumonia in pigs. Over all, the percentage of isolates from lungs was comparable to that from the nervous system. This is different from data concerning capsular types 1 to 8. In these cases, isolates from lungs were much more prevalent than those from meninges and/or brain. These findings indicate the necessity of performing capsular typing to complete epidemiological data, which will lead to a further understanding of the pathogenesis and control of *S. suis* infections.

References

1. Gottschalk M, Higgins R, Jacques M, Mittal KR, Henrichsen J. Description of 14 new capsular types of *Streptococcus suis*. J Clin Microbiol 1989; 27: 2633-2636.
2. Higgins R, Gottschalk M, Mittal KR, Beaudoin M. *Streptococcus suis* infections in swine. A 16-month study. Can J Vet Res 1990; 54: 170-173.

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Table 1. Distribution of 120 capsular types 9 to 22 isolates of *Streptococcus suis* according to their origin

	Number of isolates of capsular type													
Origin	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**21**	**22**	**Total**
Lungs	9[a]	3	5	—	—	1	3	6[a]	2	4	4	1	1	39
Meninges/brain	14	4	—	2	—	3	5	—	1	—	—	—	9	38
Multiple tissues	6	1	—	—	—	—	—	—	—	—	—	—	4	11
Heart	1	—	2	—	—	—	—	—	—	—	—	—	2	5
Others	5	—	1	1	2	—	3	2	1	—	2	—	10	27

[a]One isolate of bovine origin.

Ontario

Selenium toxicosis causing focal symmetrical poliomyelomalacia in pigs.

During a four-day period (November 27-20, 1989), seven pigs (6 live; 1 dead), between 10 and 18 weeks old, from farms A and B, were submitted for diagnosis of acute posterior paralysis affecting more than 100 pigs on the two farms. Clinical, gross and histological findings in the submitted pigs were similar. The live pigs assumed a dog-sitting position with hind legs held rigidly, but were alert and willing to eat and drink if presented with food and water. Significant gross lesions were not seen at necropsy. However, after formalin fixation of tissues, **focal, bilateral areas of necrosis were seen localized to the ventral gray**