

TAPEWORM INFECTION RESULTING FROM PORK EATEN AT A WEDDING BANQUET

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Abstract. Forty-five people who had attended a wedding banquet were examined by means of both Avidin-Biotin Peroxidase Complex-ELISA (ABC-ELISA) and Kato stool thick smear technic. The results revealed that the positive rates with ABC-ELISA were 15.56% (7/45) and Kato Katz 0.62% (1/161). There was a significant difference between the two positive rates ($p < 0.005$). Six people at the wedding had taeniasis and 4 of them also had cysticercosis. Local people have no habit of eating uncooked pork, but at this banquet the meat from an infected cysticerci pig was used for preparing dishes for the wedding feast and the cold dishes were contaminated by the bladder worms as the result of using the same chopping block.

INTRODUCTION

Taeniasis and cysticercosis are important zoonoses in parts of Northeast, Northwest and in some other areas of China. The patients with the disease are scattered. Seldom is a group of infected people who ate pork from a common source. Two patients from a factory in Lanzhou had pork at a wedding banquet and developed cysticercosis. A survey was carried out on 45 wedding attendants and 161 non-wedding attendants from the factory by means of ABC-ELISA and Kato stool thick smear technic.

MATERIA AND METHODS

ABC-ELISA reagents were products of Shanghai Bioproduct Institute. The antigen was cystic fluid; blood samples were taken on filter paper. Positive control sera were provided by the second Affiliated Hospital of Lanzhou Medical College. Kato stool thick smear technic was carried out and investigation forms were filled in by the examinees.

RESULTS

In October 1980, a worker gave a wedding banquet to his fellow workers at his house. The pork used for the dishes was from a pig fed and slaughtered by his family and had not been quarantined. The cook

of the banquet recalled that rice-like cysts were seen in the flesh, and the butcher who slaughtered the pig confirmed that it was a "bean-pook" (cysticerci meat) pig. However, the owner of the pig did not believe that flesh could cause disease and he did not want to lose money either, so the infected pork was put on the festival tables and cooked and uncooked dishes were prepared using the same chopping block. Forty-five people attended the wedding banquet.

The results of ABC-ELISA are shown in Table 1.

Table 1

The results of detecting cysticerci antibodies by means of ABC-ELISA.

Examinee	No.	Positive no.	Positive rate (%)
Wedding attendants	45	7	15.56
Non-wedding attendants	161	1	0.62

All positive cases, detected by ABC-ELISA, were treated with praziquantel. Six of them were found to contain the proglottids of *Taenia solium* in their feces. Four cases were confirmed to have cysticercosis by subcutaneous tissue biopsy and CT scan.

The results of the examination of worm eggs by means of Kato stool thick smear technic are show in Table 2.

Table 2

The results of the stool examination.

Examine no.	<i>T.solium</i> egg (+)	(+)%	Other helminths eggs *
ABC-ELISA (+) 8	1	12.5	2
ABC-ELISA (-) 198	0	0	41

* eggs of roundworms, hookworms and whipworms

DISCUSSION

The local people do not eat uncooked pork. The infection could have been caused through swallowing

inadequately cooked pork and the cooked and uncooked dishes were contaminated by using the same chopping block for preparing the dishes for the feast. That was the reason why the infection rate was much higher in the wedding attended group than the control group.

Only 2 patients with taeniasis sought medical advice after their cysticercosis infections. Five other taeniasis patients never went to a doctor even when the proglottids had appeared in thier feces. In one patient's house, a pigpen was shared with humans as a lavatory which constituted the source of human infection with the zoonosis. Sanitary disposal of human excrement and domestic animals constitutes the fundamental public health problem.

In the survey, ABC-ELISA was used to detect the antibodies of the patients with taeniasis and cysticercosis. The method was proved to be sensitive and specific. The cystic fluid antigen and filter paper blood samples which were employed in the method, made it easy to operate and suited the investigation of the epidemic.