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Preliminary Report on Suspected Non-A Non-B Hepatitis - Chiayi County

In April 1987, Bureau of Disease Control received a report from Chiayi Health Bureau that one of its villages near the sea-shore had an outbreak of acute hepatitis Provincial Puchi Hospital also reported simultaneously that 6 cases of acute hepatitis living in the same village were hospitalized since March It seemed quite unusual when compared with the previous data recording only 1 or 2 hospitalized cases of acute hepatitis during the same periods of time. Obviously it was very unusual (Poison Distribution, $P < 0.001$) and showed a picture of an outbreak of acute hepatitis in that village

There registered in that village 2,132 persons with 406 households Majority of the population are engaged in either fishery or agriculture There is no registered physician practising in the village. We interviewed all hospitals, clinics and medical laboritories situated neighbouring to that village, and detected 9 cases in Puchi town and 1 case in Tungzei village whose original residency was in that village The chief of that village also provided a name list of 8 residents who either failed to seek medical care or had seeked medical attention in Taipei or Kaohsiung Thirteen blood speciemens of the above mentioned cases had been collected on 11 of April and sent for Anti-HAV (IgM) and Anti-HBV (IgM) tests The resuts of both tests were negative and confirmed that the acute hepatitis is caused by neither Hepatitis A nor Hepatitis B

We conducted an interview to all households in that village in order to understand the epidemiological back ground of this episode. We had interviewed 1,433 individuals of 311 households 26 cases were qualified for the case definition of one who suffered from tea-colored urine or jaundice during the period from January 1 to May 10 One extra case was also included since its date of onset (December 22, 1987) was very close to that used in the case definition All cases had

also suffered from general malaise and some of the following symptoms and signs anorexia (70%), RUQ pain (60%), nausea (33%), vomiting (22%) and fever (15%) Twelve of them had elevated ALT and AST, in which the half of the cases were with elevated ALT and AST > 300 IU/L EPI curve of the onset date is shown as figure 1. Overall attack rate was 1 88% The average age of the case (44 6 ± 19 0) is significantly higher than (T-test, P < 0 05) that of the control group (32 3 ± 23 3) The attack rate for male (2 74%) was significantly higher than that for female (1 00%). There were no significant clustering in household or administrative area except that 3 households had 2 cases in the family with the relationships of father and son, couples, and grandfather and grandson The preliminary analytical report of probable risk factors revealed that only the farmers and fishermen of aquaculture breeders were statistically significant, (Fisher's exact test, P < 0 1)

A thorough investigation on related risk factors, differential diagnosis by laboratory methods is still in process. Further reports on this episode will be published in future

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Editorial notes: Non-A Non-B hepatitis is initially recognized as a viral disease which is mainly transmitted by post-transfusion or contaminated through open wounds[1]. It is quite common in blood receipants, intravenous drug addictors, hemophilia and hemodialysis patients Medical personnel who work in the hospital is also at high risk 5-20% of all non-A non-B hepatitis were transmitted non-parentally to medical personnel[2]. Past experiences in Nepal[3], Indian subcontinent[4], Burma[5] and East Africa[6] proved that non-A non-B hepatitis could also be transmitted by fecal-oral route. Large outbreaks have linked to a fecally contaminated water source or have occurred after heavy rains in the areas without systems for adequate sewage disposal Transmission by person to person with direct close contact can occur. The incubation period of parental non-A non-B hepatitis is approximately 40 days. Clinical disease is common among adults, but infrequent among childrens. Pregnant women have a dramatically high mortality rate Its diagnosis is established mainly by exclusion The following and diseases, such as EB virus and Cytomegalovirus infection, drug induced (aspirine, acetaminophen, isoniazed, rifampin and alpha - methydopa), alcoholic or obstructive hepatitis, syphilis, leptospirosis and Q fever should also be considered carefully.

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Figure 1 Onset date of 26 suspected non-A non-B hepatitis cases - Chiayi County Dec 22, 1986 ~ May 10, 1987.

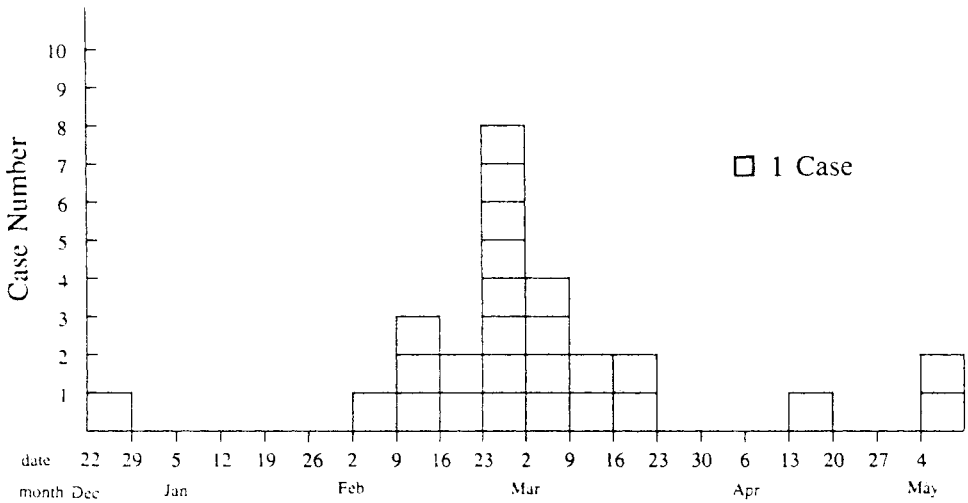

Table 1: Risk factor analysis of non-A non-B hepatitis - Chiayi County

Risk factors	Categories	Control		Case		P Value*
		No	%	No	%	
Water source	Tap water	1326	94 3	26	96 3	N S **
	Well water	75	5 3	1	3 7	
	Others	5	0 4	0	0.0	
Sewage disposal methods	Flush toilet	1189	84 6	26	96 3	N S
	Pit latrine	206	14 7	1	3 7	
	Others	11	0 7	0	0 0	
Education	Iliterate	524	37 3	2	7 4	N S
	Primary	740	52 6	21	77 8	
	Secondary	80	5 7	4	14 8	
	High	50	3 6	0	0 0	
	≥ College	12	0 9	0	0 0	
Off shore oyster breeding	Yes	222	15.8	4	14.8	N S.
	No	1184	84 2	23	85 2	
Aquaculture	Yes	478	66 0	14	48.1	0 05<P<0 10
	No	928	34 0	13	51 9	
Mariculture	Yes	120	8 5	2	7 4	N.S
	No	1286	91 5	25	92 6	
Agriculture	Yes	740	52 6	6	22 2	P<0 01
	No	666	47.4	21	77.8	

* Fisher's Exact Test (Two tail)

** N S non significant (P > 0.1)