

SUSPECT INFLUENZA A/USSR IN BRISBANE (contributed by the State Health Laboratory in Brisbane)

In early August, a strain of influenza similar to A/USSR was isolated from a 22 year old unvaccinated male. The patient had a slightly elevated temperature with a sore throat for four days. Rhinitis developed after two days. The strain has been referred to the W.H.O. Reference Laboratory for confirmation.

Editor's note: To date, only one case of influenza A/USSR/90/77(H₁N₁) has been recorded in Australia (CDI Bulletin 78/6). Further tests on the suspect isolate from Queensland are proceeding at the W.H.O. Reference Laboratory.

INFLUENZA B AT AN ARMIDALE (N.S.W.) SCHOOL (contributed by the State Health Laboratory in Brisbane)

In early August, a boys' school at Armidale reported an epidemic of an influenza like illness in 40 boys.

Specimens were collected from three patients and a strain of Influenza B (yet to be finally typed) was isolated from the three specimens.

Sixteen of the patients received influenza vaccine this year, the other 24 did not. The attending clinician formed the opinion that those vaccinated were not as severely ill as those not vaccinated.

BOTULISM FROM CANNED SALMON IN THE U.K.

Investigations into the cause of 4 cases of botulism in the U.K. associated with the consumption of canned salmon, have detected Clostridium botulinum exotoxin type E in the incriminated can.

The source of contamination of the can is believed to be to a small hole which could have allowed dirty air or water to be sucked in during cooling at the factory. This would also prevent detection since gas produced in the can would have been allowed to escape. Post-processing contamination is the most likely cause, since the producers advise that the cans are heated after sealing at 240°F (120°C) for 90 minutes at 15lb/sq ins. C. botulinum spores are normally destroyed at this temperature within much shorter times.

The latest report on the condition of the patients indicates that all four are still critically ill. Action has been taken to recall cans in Australia from the same batch as that associated with

the outbreak, but testing of these cans has so far failed to detect any C. botulinum.

VIRUSES IN FAECES FROM PATIENTS WITH GASTROENTERITIS FOLLOWING THE CONSUMPTION OF OYSTERS (contributed by A.M. Murphy, I.C.P. & M.R., Sydney.)

Staff at the I.C.P. & M.R. have now examined 64 faecal specimens by electron microscopy and inoculation of cell cultures, as part of the investigations into the recent food poisoning outbreak due to rock oysters.

Viral particles have been found in 49 by electron microscopy. These particles fall into two groups. One type measuring 23-24 nm. and resembling parvoviruses have been found in specimens from 25 patients. The other measuring 28-30 nm. and probably enteroviruses have been found in 21 specimens. Both types have not been found in the same specimen.

Nine enteroviruses have been isolated in cell cultures; all from specimens in which the larger viral particles were found. These viruses grow poorly in monkey kidney.

The implication of finding two viral types in what appears to be a single clinical entity is not clear at present.

ENTEROVIRUS EYE INFECTION (contributed by Mr G.B. Hartnett, State Health Laboratory Services, Perth)

We recently isolated an Enterovirus from the eye of a girl who had recently been in Indonesia. This was neutralised by serum prepared against the 1975 Singapore strain (SEC 75) and not by serum against the 1971 strain (SEC 71).

Enteroviruses similar to the strain which we isolated have been responsible for widespread outbreaks of haemorrhagic conjunctivities in Africa, Japan, Italy and South East Asia. These viruses seem to form a group of new enterovirus serotypes, and a Japanese isolate J670/71 has been formally designated Enterovirus 70. From the literature it appears that there is a relationship between SEC 70 and 75 and Enterovirus 70, but the data is still confused.

At present we do not have virus strains or antisera for other members of this group and cannot thus identify the agent more fully.

So far there have been no further cases in spite of the epidemic nature of the viruses in other communities.

HUMAN SALMONELLOSIS

The cases of human salmonellosis reported for July 1978 are tabled in this issue. There was a decrease in the total number of isolates from 316 in June to 232 in July (24% drop), and apart from S. typhimurium, no serotypes predominated.

CASE REPORTS

The following is a report on 5 interesting cases provided by Dr E. Reiss-Levy, St George Hospital, Kogarah, Sydney.

1. HERPES SIMPLEX ENCEPHALITIS

A previously well, 24 year old girl was on holiday in Australia from Ireland. On 24.5.78 she developed headache, photophobia, nausea and vomiting, then two days later had a generalised convulsion and was admitted to hospital. She was drowsy and febrile (38.6°) had neck stiffness and a positive Kernig's sign, but no papilloedema.

Her CSF results were as follows:

	<u>Polymorphs</u>	<u>Mononuclears</u>	<u>Red cells</u>	<u>Protein</u>	<u>Glucose</u>
26.5.78	1 x 10 ⁶ /L	50 x 10 ⁶ /L	20 x 10 ⁶ /L	0.2 G/L	4.6mmol/L
28.5.78	35 x 10 ⁶ /L	90 x 10 ⁶ /L	217 x 10 ⁶ /L	1.3 G/L	2.8mmol/L

E M I brain scan 29.5.78 showed no focal lesion.

Herpes simplex was isolated from a brain biopsy taken 30.5.78. Histological examination of the biopsy showed severe acute encephalitis with intranuclear inclusions in the astrocytes, in keeping with herpes encephalitis. CSF antibody titre to herpes simplex on 28.5.78 was 1. Serum antibody titre to herpes simplex was 32 on 29.5.78 and 1024 on 6.6.78. She became increasingly drowsy, was treated with adenosine arabinoside 750 mgm/day, but the day after the brain biopsy she became deeply comatose and 7 days later she died.

2. FATAL NEONATAL HERPES SIMPLEX

A 25 year old primipara was delivered of a normal baby on 23/2/78. The baby developed a small ulcer on the palate at 4 days of age, became progressively more ill and died on the 8th day. Autopsy showed multiple yellow nodules in the liver, which were necrotic on histology. The mother developed breast lesions after the death of the infant. Vulval lesions were present on examination 2 weeks post partum, but the mother had not been aware of them, attributing the discomfort to the episiotomy.

Herpes simplex type II was isolated from

1. baby's throat swab and urine (2.3.78)
2. baby's liver, brain and kidney (autopsy 3/3/78)
3. mother's vulva, vagina, cervix and breasts (10.3.78)

The mother had no herpes antibodies at the time of the birth and her herpes titre rose to 16 subsequently. The Varicella titre rose from 32 to 512, a marked anamnestic response. The original source of the herpes simplex is uncertain as the husband had no herpes antibodies and the mother's infection apparently was a primary one. The nipples were presumably infected from the baby by suckling. This being a secondary inoculation no recurrence at the nipples is expected.

3. β -LACTAMASE PRODUCING GONOCOCCUS

A young Australian contracted gonorrhoea from a prostitute in Bangkok. On returning to Sydney, in late June 1978, he received 2.4 million units of procaine penicillin on 3 consecutive days without response, then 2 G intramuscular Spectinomycin with good response. The organism showed no zone around a 2 μ g penicillin disc and gave a positive β -lactamase test (using penicillin, iodine and starch on a filter paper strip).

4. SCRUB TYPHUS

A 57 year old Qantas steward was admitted to St George Hospital on 9.5.78 with a 5-day history of rigors, chills and fever. He had been visiting his daughter in Cairns and 4 days before the onset of the illness had walked in the scrub in the Atherton Tablelands. Seven days before the onset, his wife had lanced what she thought was a boil on his abdomen.

On admission he was febrile (39.8°) with a raised erythematous rash on his trunk and proximal parts of his limbs but sparing his face. The lesion on his abdomen resembled an eschar.

His peripheral white cell count was $6.5 \times 10^9/L$, with a normal differential. The diagnosis of scrub typhus was made on the Weil Felix test. The titre to Proteus OX-K rose from 40 on 9.5.78 to 320 on 19.5.78.

He was treated with intravenous penicillin and methicillin for 5 days, then amoxicillin and tetracycline. On the first day he also received chloramphenicol. He became afebrile on the 8th day and was discharged on the 10th day.

5. CHANCROID

On 16th May, a previously well 20 year old man, who had migrated to Australia 18 months previously from Lebanon, developed an ulcer on the base of his penis. This increased in size over 3 days, despite penicillin^(a) therapy, from 1 cm to 2.5 cm in diameter, and a unilateral bubo appeared and rapidly enlarged.

Treatment was changed to sulphonamide^(b) and after 3 days tetracycline^(c) was added. He was admitted to hospital on the 13th day of his illness complaining of fever, headache and insomnia. These symptoms improved rapidly on rolitetracycline. The bubo was aspirated on the 15th and 16th day, then burst spontaneously on the 17th day. Sinuses developed along the aspiration tracts. Healing was slow. He was maintained on oral tetracycline^(d) until his discharge home. The patient was discharged well on 16th June (one month after onset), with the ulcer healed, no bubo and no further discharge from the sinuses.

The diagnosis of chancroid was based on the isolation of organisms resembling Haemophilus ducreyi from the ulcer and the bubo. Syphilis was excluded by repeated negative dark ground examinations on

material from the ulcer, and repeatedly negative reagin tests. LGV c.f. antibodies were not significantly raised. (Titre was a stable 16). Viral cultures from the ulcer were negative. The Mycoplasma pneumoniae complement fixing antibody titre was 2056, suggesting that Mycoplasma pneumoniae accounted for the systemic illness and possibly the clinical response to rolitetracycline.

- (a) Procaine penicillin 1.5 million units/D
- (b) Sulphafurazole 4G/D for 7 days
- (c) Tetracycline 2G/D for 4 days
- (d) Rolitetracycline 275 mgm b.d. for 4 days

Bacteriology

Organisms indistinguishable from H. ducreyi were isolated from the ulcer, bubo and sinus by direct inoculation on Columbia blood agar and chocolate agar. Two colony types were noted: one pin-point and one up to 1.5 mm and grey. Colonies were larger on blood agar than on chocolate. The organism had many features generally described for H. ducreyi, i.e. poor growth, colonies tending to remain intact when touched a loop^{1,2}, growth only in the presence of CO₂² and never anaerobically²; no satellitism to X or₃V factors⁴; gram negative coccobacillary forms 1 - 2 by 0.5³, in pairs and tangled chairs^{2,3}, with some cells resisting total decolorization⁴.

Rabbit blood clot enrichment was not successful, possibly because of heavy overgrowth of contaminants. Subcultures onto rabbit blood agar were also not successful.

The failure of isolation in rabbit blood clot and agar was surprising, but growth on chocolate and horse blood is well recorded. Hammond¹ showed that growth on enriched chocolate agar (G.C. base with 1% haemoglobin) was equal to that on rabbit blood agar; Deacon² isolated "colonies indistinguishable from H. ducreyi" by direct inoculations onto horse blood agar plates in several cases; Kilian⁴ maintained his strains on chocolate horse blood agar, but found poorer growth on horse blood agar.

The features of our organism, together with the clinical history leave one in little doubt that this was a case of chancroid. Unfortunately rabbit pathogenicity on intradermal inoculation as described by Deacon², was unsuccessful, as the organism became non viable.

The organism survived on a pus swab in Stuart's transport medium for 24 hours but not for 48 hours.

Epidemiology

The patient's contact was an aboriginal woman, who was asymptomatic. However, on colposcopic examination, two cervical ulcers were seen and she was treated with sulphonamide. Cervical swabs were collected and cultured in fresh inactivated human serum. An

organism showing the typical morphology of H. ducreyi was seen on gram stain after 48 hours incubation but the organism was not isolated on subculture. Many other gram negative organisms including Bacteroides were isolated and could have accounted for the morphology.

The disease is very rare in Australia. The case described by Harvey et al⁵ in 1977 was acquired in Hong Kong. In this case neither the patient nor the contact had been out of Australia recently.

References

1. Hammond, G.W., Lian, C.J., Wilt, J.C. and Ronald A.R. 1978. Journal of Clin. Micro. 7, 39.
2. Deacon, W.E., Albritton, D.C., Olansky, S., Kaplan W. 1956. J. of Investigative Dermatology. 26, 399.
3. Bercharadt, K., Hoke, A.W. 1970. Arch. Derm. 102, 190.
4. Kilian, M. 1976. J. Gen. Micro. 93, 9.
5. Harvey, K., Bishop, L., Silver, D., and Jones, T. 1977. M.J.A. 1, 956.

Note

Since preparation of this Bulletin, one of the 4 patients suffering from botulism from the canned salmon has died.

PERIOD JULY, 1978

SEROTYPE	TOTAL	NSW & ACT	VIC	QLD	SA	WA	TAS	NT	AGE						CUMULATIV TOTAL
									<1	1-5	6-15	16-60	>60	NOT STATED	
S. adelaide	5					3		1	1	2		1		1	27
S. agona	2	1		1					1			1			4
S. anatum	6		1	3		1		1	3	1	1	1			24
S. morbificans S. bovis-	5	1	2			2				3	1	1			50
S. bredeney	2	2								2					21
S. chester	9			2		1		6	1	5	1	2			41
S. derby	11		10	1						1	2	8			59
S. emek	1					1						1			2
S. emmastad	1					1						1			2
S. give	1							1				1			11
S. havana	1					1			1						36
S. infantis	6	1	2	1	1	1			2		1	1	2		22
S. jangwani	3					3			1	1		1			12
S. kinondoni	1							1		1					2
S. lefeld	2		2								1	1			3
S. lansing	1					1			1						7
S. london	2		2								1		1		3
S. meleagridis	1		1									1			4
S. montevideo	3	1	2						1		1	1			3
S. muenchen	11			3		2		4	3	4		1		1	40
S. newport	12	2	6	2		2			2	6	1	3			30
S. oranienburg	3					3				2		1			12
S. orientalis	1			1									1		8
S. paratyphi B	2							2				2			5

PERIOD JULY, 1978

SEROTYPE	TOTAL	NSW & ACT	VIC	QLD	SA	WA	TAS	NT	AGE						CUMULATIVE TOTAL
									<1	1-5	6-15	16-60	>60	NOT STATED	
S. poona	1							1		1					1
S. potsdam	2					2			1			1			7
S. rubislaw	1							1	1						16
S. saint-paul	7					6		1	3	2	1			1	73
S. sentfenberg	1		1										1		12
S. singapore	3		2			1			1	1		1			25
S. tennessee	9	2	1			1		5	1	1		7			12
S. thompson	1					1					1				1
S. typhimurium	102	17	30	10	10	24	4	10	25	33	13	20	3	8	476
S. virchow	3			2	1				1	1		1			28
S. waycross	1			1						1					3
S. welikade	3					3						3			7
S. weltevreden	1					1						1			4
S. wordsworth	2	1				1			1	1					28
S. worthington	1				1							1			2
TOTAL	232	28	62	27	14	62	4	35	52	71	26	64	8	11	

AUSTRIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 27-7-78 . 9-8-78 BULLETIN NUMBER . 78/16
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW) / WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR- FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
0100 ADENOVIRUS NOT TYPED.....			1	1		2	17		21
0101 ADENOVIRUS TYPE 1.....								1	1
0102 ADENOVIRUS TYPE 2.....				1		1		4	6
0103 ADENOVIRUS TYPE 3.....				1				2	3
0105 ADENOVIRUS TYPE 5.....						2		1	3
0107 ADENOVIRUS TYPE 7.....				3					3
0108 ADENOVIRUS TYPE 8.....								1	1
0118 ADENOVIRUS TYPE 18.....				1					1
0119 ADENOVIRUS TYPE 19.....				1					1
0199 ADENOVIRUS TYPING PENDING.....	9				5	6			20
0201 INFLUENZA A VIRUS.....							1		1
0203 INFLUENZA B VIRUS.....		1		4	2	2	3		12
0299 INFLUENZA VIRUS.....	1								1
0301 PARAINFLUENZA VIRUS TYPE 1.....								2	2
0302 PARAINFLUENZA VIRUS TYPE 2.....							1	3	4
0303 PARAINFLUENZA VIRUS TYPE 3.....					2	3	2	2	9
0400 RESPIRATORY SYNCYTIAL VIRUS (RS) ...	4	1		9	21	43	7	5	90
0500 RHINOVIRUS (ALL TYPES).....				5	3	7	4	2	21
0600 MYCOPLASMA PNEUMONIAE.....	25	1		19		6	7		58
0700 ORNITHOSIS-PSITTACOSIS.....	2			2					4
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED.....							2	1	3
0809 COXSACKIEVIRUS A9.....			1						1
0901 COXSACKIEVIRUS B1.....	1							1	2
0902 COXSACKIEVIRUS B2.....								1	1
0903 COXSACKIEVIRUS B3.....				2					2
1005 ECHOVIRUS TYPE 5.....				1					1
1007 ECHOVIRUS TYPE 7.....				1	1	1			3
1014 ECHOVIRUS TYPE 14.....								2	2
1015 ECHOVIRUS TYPE 15.....						1			1
1016 ECHOVIRUS TYPE 16.....						1			1
1022 ECHOVIRUS TYPE 22.....							2		2

2

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 27-7-78 . 9-8-78 BULLETIN NUMBER . 78/16
 VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

VIRUS OR VIRAL ANTIGEN	ICPMB		PHH/	PAIR-			STATE	STATE	Total
	(NSW) / WVH (ACT)	RAHC (NSW)	POW (NSW)	FIELD (VIC)	RCH (VIC)	IMVS (SA)	LAB (QLD)	LAB (WA)	
1030 ECHOVIRUS TYPE 30.....						1		3	4
1033 ECHOVIRUS TYPE 33.....						1			1
1101 POLIOVIRUS TYPE 1.....						2	1	1	4
1102 POLIOVIRUS TYPE 2.....								1	1
1103 POLIOVIRUS TYPE 3.....	2			3			2		7
1200 MUMPS VIRUS.....	2			3	1		5		11
1300 HERPES VIRUS GROUP-NOT TYPED.....				2		1			3
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....	8	1	2	1	4	1	18	3	38
1302 EPSTEIN-BARR VIRUS (EB VIRUS).....						1			1
1303 VARICELLA-ZOSTER VIRUS.....	1					1			2
1306 HERPES SIMPLEX TYPE 1.....	5			8		9		6	28
1307 HERPES SIMPLEX TYPE 2.....	22			16		8		18	64
1399 HERPES VIRUS TYPING PENDING.....	1								1
1401 COXIELLA BURNETI.....	6			1			26		33
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORF VIRUS).....	1					1			2
1521 MEASLES VIRUS.....	1					1			2
1522 RUBELLA VIRUS.....							1		1
1532 HEPATITIS B ANTIGEN.....		1	6	21		8	3	36	75
1533 HEPATITIS B ANTIBODY.....						12			12
1541 CHLAMYDIA A - TRIC TYPE.....								25	25
1556 CMV - CYTOMEGALOVIRUS.....	4	1	1	2	4	2	6	6	26
1562 CORONAVIRUS.....			1						1
1564 ROTAVIRUS.....	11	3	7	30		15	26	27	119
1599 ENTEROVIRUS TYPING PENDING.....		1			1	11		2	15
Total.....	106	10	19	138	44	150	134	156	757

Ross River Virus

10

10

Astrovirus

1

1

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD - 27-7-78 . 9-8-78 BULLETIN NUMBER . 78/16
 VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS-CONTINUED

VIRUS OR VIRAL ANTIGEN	FA	BL	NA	CS	SK	EY	UR	BR	GE	OT	Total
1033 ECHOVIRUS TYPE 33.....				1							1
1101 POLIOVIRUS TYPE 1.....	2		2								4
1102 POLIOVIRUS TYPE 2.....			1								1
1103 POLIOVIRUS TYPE 3.....	5						2				7
1200 MUMPS VIRUS.....		5	2	3							10
1300 HERPES VIRUS GROUP-NOT TYPED.....		1			2						3
1301 HERPES SIMPLEX VIRUS-NOT TYPED.....		5	5		11	1			12	1	35
1302 EPSTEIN-BARR VIRUS (EB VIRUS).....		1									1
1303 VARICELLA-ZOSTER VIRUS.....		2									2
1306 HERPES SIMPLEX TYPE 1.....	1		10	1	14				1	1	28
1307 HERPES SIMPLEX TYPE 2.....					9				54		63
1401 COXILLA BURNETI.....		33									33
1515 CONTAGIOUS PUSTULAR DERMATITIS (ORP VIRUS).....					1					1	2
1521 MEASLES VIRUS.....		2									2
1522 RUBELLA VIRUS.....		1									1
1532 HEPATITIS B ANTIGEN.....		75									75
1533 HEPATITIS B ANTIBODY.....		12									12
1541 CHLAMYDIA A - TRIC TYPE.....									25		25
1556 CMV - CYTOMEGALOVIRUS.....		5	5				8		5	1	24
1562 CORONAVIRUS.....	1										1
1564 ROTAVIRUS.....	119										119
1599 ENTEROVIRUS TYPING PENDING.....	6		5	3						1	15
Total.....	172	213	195	10	37	7	10		97	8	749

Ross River Virus _____ 10 _____ 10
 Astrovirus _____ 1 _____ 1