



REPORTED MORBIDITY
MARCH, 1982

DEPARTMENT OF HEALTH AND HUMAN RESOURCES
OFFICE OF HEALTH SERVICES AND ENVIRONMENTAL QUALITY
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MONTHLY MORBIDITY REPORT

RECEIVED
Provisional Statistics

PUBLIC HEALTH STATISTICS and
DIVISION OF DISEASE CONTROL

REYE SYNDROME and SALICYLATES *

A new study linking aspirin use and Reye syndrome has been reported in a recent issue of the CDC's MMWR (1). This study (2) shows the same strong association between aspirin use and Reye Syndrome as 3 previous epidemiologic studies (3-5). In their statement in that MMWR, members of the CDC wrote that "CDC advises physicians and parents of the possible increased risk of Reye syndrome associated with the use of salicylates for children with chickenpox or influenza-like illness." A recent memorandum from the executive board of the American Academy of Pediatrics reiterated a statement made in 1980 by a CDC advisory panel advising caution in using salicylates in children with chickenpox or influenza. We have reviewed the data from the 4 studies and feel that a stronger statement regarding aspirin avoidance in children is necessary.

All four epidemiologic studies comparing Reye syndrome cases with controls matched for age, sex, race, classroom and viral illness symptoms (i.e. chickenpox, respiratory illness, etc.), have shown that Reye syndrome cases were significantly more likely to have taken salicylate-containing medications during the antecedent illness than were controls who had similar illnesses. In addition, the last 3 studies (2,4, 5) have shown that controls were more likely to have taken acetaminophen-containing medication than were cases. In each study, the association with salicylates remained strong when controlling for various indicators of severity of illness. In the study from Ohio, the relative risk of Reye syndrome for children who had used salicylates was approximately 11.5 times higher than those who had not used salicylates.

In addition, we have calculated that the weighted relative risk estimate (from all 4 studies) for salicylate users was approximately 15 (i.e. children who had received salicylate-containing medication were about 15 times as likely to develop Reye syndrome as children who had not received salicylates -- 95% confidence interval, 7 to 34). We obtained similar estimates of the relative risk with the data stratified by maximum fever or when analyzing only cases and controls who were matched by height of fever, or when analyzing only those cases and controls

who had received an antipyretic for their illness.

None of these studies were perfectly designed or executed. Each has potential biases which could account for some of the differences in salicylate use. However, the consistency of the association in four studies carried out in three different states over a 2½ year period, the strength of the association even when analyzed by controlling for severity of antecedent illness and by matching for fever or general antipyretic use, and the fact that controls consistently used acetaminophen more frequently than did cases, all make a strong argument for this association being valid. The studies do not prove that salicylates cause Reye syndrome; there are undoubtedly other factors involved (i.e. type of viral illness, genetic predisposition, etc.). But they do show that children who use salicylate-containing medication have a clearly increased risk of developing Reye syndrome. Our calculations show that if the relative risk in salicylate users is indeed 10 to 15, and the prevalence of salicylate usage in children with varicella and influenza illnesses is 50% to 70%, then 80% to 90% of current Reye syndrome cases would be attributable to salicylate use. Even if the relative risk were only 3 and aspirin use is 50%, then half of Reye syndrome cases are attributable to salicylate use.

In making any decision regarding therapeutic intervention, one must weigh the potential gains against the potential risks. In this case, part of the risk of aspirin usage for children with varicella or influenza includes an increased risk of Reye syndrome (10-15 times, by our estimates). The incidence of Reye syndrome is low (slightly less than 1 in 10,000) but carries a high mortality (20 - 30%) and morbidity. Aspirin offers no clear advantage over acetaminophen for fever or pain relief in children; (6, 7) some authorities had felt that acetaminophen was safer than aspirin in children even before the studies which show the increased risk of Reye syndrome with salicylates, and had discouraged its use in young children because of the potential cumulative toxicity seen with therapeutic dosages (8). We have presented this data to a group of pediatricians, members of the University-affiliated infectious diseases section,



Reprint from Colorado Disease Bulletin, Vol. No. X, Issue No. 5, March 6, 1982.

and clinicians who provide intensive care for children; they endorse us in the following recommendations:

Physicians and parents should avoid using salicylate-containing medications in children (≤ 18 years) for treatment of chickenpox or respiratory illnesses with fever. Where it is felt important to treat fever or pain, acetaminophen (15 mg/kg/q 4 hr) should be used.

REFERENCES

- 1) CDC. National Surveillance for Reye Syndrome, 1981: Update, Reye Syndrome and Salicylate

- Usage. MMWR, 1982; 31:53-61.
- 2) *ibid*
 - 3) Starko K M et al. Reye's Syndrome and salicylate use. Pediatrics 1980; 66:859-64.
 - 4) Waldman R J, Hall W N, McGee H, Van Amburg G. Aspirin as a risk factor in Reye Syndrome. Unpublished data.
 - 5) CDC. Reye Syndrome, Ohio, Michigan. MMWR 1980; 29: 532, 537-9.
 - 6) Tarlin L, et al. A comparison of the antipyretic effect of acetaminophen and aspirin. AJDC. 1972; 124: 880-2.
 - 7) Lovejoy F H. Aspirin and acetaminophen: a comparative view of their antipyretic and analgesic activity. Pediatrics (suppl.) 1978: 904-9.
 - 8) Rumack B H. Aspirin versus acetaminophen: a comparative view. Pediatrics (suppl.) 1978: 943-6.

WHAT TO KNOW ABOUT GENITAL HERPES

THE TWO HERPES VIRUSES:

There are two types of herpes simplex virus (HSV).

Type 1 is usually responsible for oral infections. Children usually get infected between the ages of 6 months to 5 years. At age 15, 70% of the population has been infected. The initial infection is usually mild: multiple sores in the mouth. Some persons have recurrent infections. These are the cold sores and fever blisters.

Type 1 may also be responsible for genital herpes, although rarely.

Type 2 is usually responsible for genital infections.

TRANSMISSION

Transmission of genital herpes requires close physical contact. Transmission outside of sexual contact is extremely unusual. Patients are infectious when active lesions exist; however, they may occasionally be infectious without lesions present.

NATURAL HISTORY OF INFECTION

After infection the virus follows the sensory

nerves toward the ganglia of the central nervous system. There the virus remains latent probably for the life of the host. Factors such as fever, stress, other infections, or menstruation may cause the virus to become active again and recurrences are observed.

INCUBATION

The incubation period is 6 – 7 days (2 to 12 days).

CLINICAL

Many genital infections are completely asymptomatic or so mild that they go unnoticed.

CERVICITIS: Most common, herpetic vesicles or ulcers on the cervix.

VULVOVAGINITIS: Some symptoms may be fever, malaise, painful urination, or genital tenderness for a few days, followed by crops of red bumps which progress to vesicles and ulcers on vulva, genitocrural folds or anal area, and are accompanied by painful lymph nodes. These lesions may persist a week or two.

MALE GENITAL HERPES: Burning, painful and frequent urination, watery discharge and tiny

vesicles on penis.

INITIAL INFECTION AND RECURRENCES

Initial infection is usually more severe, accompanied by systemic signs (fever, malaise, etc.). Recurrences are repeat episodes. They may be triggered by physical or emotional stress. They usually occur at the same site as the initial infection but with less lesions, less pain and have a shorter course. About 60% of initial infections are followed by recurrences.

COMPLICATIONS

Aseptic meningitis or meningoencephalitis are rare but serious complications of herpes.

NEONATAL HERPES

Neonatal herpetic infection occurs on 1 of 3,000 to 1 of 30,000 deliveries. Without treatment 50% of infected neonates die, 25% survive with neurological or ocular sequelae, and 25% have localized infections (mouth, eye, skin) that resolve.

Practically all neonatal herpes is acquired from the mother at the time of vaginal delivery. Therefore it is important to diagnose herpes during pregnancy, if active lesions exist Cesarean Section is recommended.

HERPES AND CERVICAL CANCER

There is evidence that HSV infection is associated with cancer of the cervix. It seems probable that this is a causal relationship although absolute proof is not yet available.

Because of this association, it is recommended that women with genital herpes have a routine pap smear done every 6 months (to 1 year).

DIAGNOSIS

The diagnosis of herpes is usually done on a clinical basis since lesions are often fairly typical and confirmatory lab tests are not yet routinely available.

Herpes associated cells are demonstrated in 70 — 75% of the pap smears performed on infected patients. These cells are specific for herpes.

TREATMENT

There is no recognized safe, effective therapy for genital herpes. Patients should be instructed to use sitz baths or hot wet soaks t.i.d. for pain relief and to minimize secondary infections. To relieve severe symptoms analgesics (aspirin or equivalent) are recommended.

COUNSELLING

Explain sexual transmission, and the need to abstain from intercourse when lesions are present.

Discuss recurrences.

Discuss neonatal herpes and stress need to inform obstetrician during pregnancy.

Discuss association with cervical cancer and need for routine pap smears.

FOR SPECIFIC QUESTIONS CALL:

VD CONTROL REGIONAL SUPERVISOR

or

VD CONTROL SECTION

(504) 568-5275 LINC 621-5275

SELECTED REPORTABLE DISEASES (By Place of Residence)

STATE AND PARISH TOTALS REPORTED MORBIDITY MARCH, 1982	VACCINE PREVENTABLE DISEASES					ASEPTIC MENINGITIS	HEPATITIS A AND UNSPECIFIED **	HEPATITIS B	LEGIONNAIRES DISEASE	MALARIA ***	MENINGOCOCCAL INFECTIONS	SHIGELLOSIS	TUBERCULOSIS, PULMONARY	TYPHOID FEVER	OTHER SALMONELLOSIS	UNDERNUTRITION SEVERE	GONORRHEA	SYPHILIS, PRIMARY AND SECONDARY	RABIES IN ANIMALS (PARISH TOTALS CUMULATIVE, 1982)
	MEASLES	RUBELLA*	MUMPS	PERTUSSIS	TETANUS														
TOTAL TO DATE 19 81	0	4	3	1	0	8	166	72	0	2	44	13	87	0	34	1	4646	385	12
TOTAL TO DATE 19 82	0	0	1	0	1	20	236	60	0	1	17	19	106	0	40	0	5924	424	5
TOTAL THIS MONTH	0	0	1	0	1	11	104	30	0	1	13	11	35	0	18	0	2561	171	3
ACADIA							2	2			1						20	1	
ALLEN																	3		
ASCENSION													1				6		
ASSUMPTION																	28	2	
AVOUELLES							2										7		
BEAUREGARD													1				5		
BIENVILLE																	2		1
BOSSIER						2	1										37	4	1
CADDO						1	1				1	5	1		3		210	14	
CALCASIEU							4								4		137	7	
CALDWELL																	3	1	
CAMERON																	2		
CATAHOULA																	6	1	
CLAIBORNE													2				7		
CONCORDIA													1				2		
DESOTO								1									9	1	
EAST BATON ROUGE											1		1				163	8	1
EAST CARROLL							3										11	1	
EAST FELICIANA																	3	1	
EVANGELINE																			
FRANKLIN							2						1				5	1	
GRANT																	3		
IBERIA							4										24	1	
IBERVILLE																	10		
JACKSON																			
JEFFERSON						1	28	1					5		1		182	12	
JEFFERSON DAVIS																	11		
LAFAYETTE							2	3		1	1						56	4	
LAFOURCHE							1					1	1				43		
LASALLE																	1		
LINCOLN							1	1									4	4	
LIVINGSTON																	7	1	
MADISON																	15		
MOREHOUSE							1						2				37	1	
NATCHITOCHES								1									4		
ORLEANS							19	10			4	2	5		4		960	79	
OUACHITA							8						5				129	6	
PLAQUEMINES							1	1									4		
POINTE COUPEE																	3		
RAPIDES					1		3						2				97	3	1
RED RIVER																			
RICHLAND													1				16		
SABINE															1				
ST. BERNARD							5										3		
ST. CHARLES																	7	1	
ST. HELENA																	1		
ST. JAMES													2				4		
ST. JOHN						1											4	1	
ST. LANDRY													1				12	1	
ST. MARTIN							1				2						16	1	
ST. MARY							2						2				23	1	
ST. TAMMANY							1	6				1					17	1	
TANGIPAHOA							1										14		
TENSAS																	4		
TERREBONNE						6	3				1				1		89		
UNION							2										9		
VERMILION								1				2	1				5	1	
VERNON				1			2										8	1	1
WASHINGTON							2				1				3		9	1	
WEBSTER								1							1		22	3	
WEST BATON ROUGE																	12		
WEST CARROLL								1									2	1	
WEST FELICIANA																	4	5	
WINN							2	1									2		
OUT OF STATE											1						22		

* Includes Rubella, Congenital Syndrome

** Includes 6 cases of Hepatitis, Non-A and Non-B, reported January - March, 1982.

*** Acquired outside United States unless otherwise stated.

From January 1, 1982 - March 31, 1982 the following cases were also reported:
2 - Cryptococcosis; 1 - Histoplasmosis; 1 - Psittacosis.

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This public document was published at a cost of \$.30 per copy by the Office of Health Services and Environmental Quality to inform Physicians, Hospitals, and the Public of current Louisiana morbidity status under authority of R.S. 40:36. This material was printed in accordance with the standards for printing by state agencies established pursuant to R.S. 43:31.