

TABLE V.—AGE, SEX, AND RACE: STUDY, MATCHED CONTROL, AND 5-YEAR REVIEW PATIENTS

Age (years)	Study patients		Matched control patients		5-year review patients	
	Number	Percent	Number	Percent	Number	Percent
0 to 1.....	14	50	14	56	120	63
1 to 5.....	10	36	10	40	53	28
5 to 10.....	4	14	1	4	12	6
10 to 15.....	0	-----	0	-----	5	3
Male.....	13	46	16	64	90	47
Female.....	15	54	9	36	100	53
Negro.....	20	71	18	72	148	78
White.....	8	29	7	28	42	22

Description of matched control patients. Twenty-five pediatric patients admitted to Ben Taub General Hospital from April, 1965, to July, 1965, served as matched control subjects. The study and control patients were relatively well matched as to age, sex, race, and etiologic agent (Tables IV, V). Twelve of the 25 patients had *H. influenzae* meningitis, 7 meningococcal disease, 4 pneumococcal meningitis and 2 bacterial meningitis of unknown etiology. As in the study group, there was one patient included in the meningococcal category on the basis of identification of a gram-negative bacterium on a smear of cerebrospinal fluid and compatible clinical illness despite negative blood and spinal fluid cultures. One case of meningococcemia was included before it became apparent that the patient did not have meningeal involvement.

Description of 5 year review patients. In order to establish a base line of mortality and morbidity of bacterial meningitis in our hospital, a review was made of the charts of all pediatric patients (2 months to 14 years) admitted to Ben Taub General Hospital with bacterial meningitis and treated by conventional methods during the 5 year period 1959 through 1963. As in the study and matched control groups, patients under 2 months of age were excluded in order to eliminate cases of meningitis due to organisms which are common etiologic agents in the newborn period (*Escherichia coli*, *Proteus* sp., *Listeria monocytogenes*, and various groups of streptococci). One hundred and ninety patients were suitable for inclusion in the "5 year review group." The etiologic agents isolated from these children are shown in Table V. *H. influenzae* was the causative agent in almost one half of the cases. The etiologic agent could not be determined in approximately one third of the cases although many of these patients had organisms on the direct smear of the cerebrospinal fluid.

Assessment of severity of illness. The severity of the illness on the day of admission to the hospital could be adequately evaluated in the study and the matched control groups, but not in the 5 year review group. A scale of 1+ to 4+ as described by Thrupp and co-workers (9) was used:

- 4+ Coma, shock, semicoma or hypotension.
- 3+ Convulsions without coma or shock.
- 2+ Temperature $>105^{\circ}$ F., symptoms >5 days, or complicating disease.
- 1+ None of the above.

TABLE VI.—SEVERITY OF ILLNESS: STUDY AND MATCHED CONTROL PATIENTS

Severity of illness ¹	Number of study patients				Number of matched control patients			
	4+	3+	2+	1+	4+	3+	2+	1+
<i>H. influenzae</i>	8	2	4	2	7	2	2	1
<i>N. meningitidis</i>	4	-----	3	1	3	-----	-----	4
<i>D. pneumoniae</i>	-----	1	-----	-----	-----	1	1	2
Unknown etiology.....	-----	-----	3	-----	-----	1	1	-----
Total patients.....	-----	-----	3	-----	-----	1	1	-----
Total patients.....	12	3	10	3	10	4	4	7

¹ See text.