

BACTERIAL MENINGITIS 1996-1999, PART II

No. 50, 2000

Meningococcal meningitis

Meningococcal meningitis was most frequent in children and adolescents up to the age of 20 years, Fig. 1 and Table 1. Meningococcal disease is the subject of annual reports, the latest in EPI-NEWS 43/00.

Pneumococcal meningitis

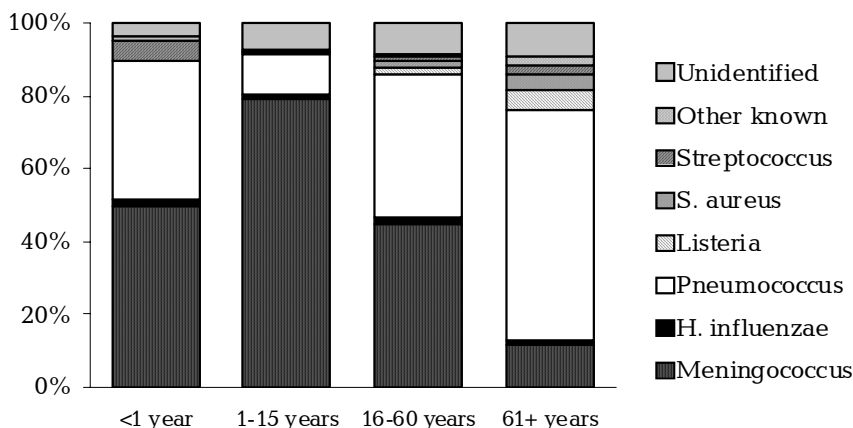
Pneumococcal meningitis occurred especially during the first year of life and in adults over 60 years of age, Fig. 1 and Table 1. The incidence was uniform throughout the country. The mortality was 22% but varied with age from <1% in 0-20-year-olds to 22% in 21-60-year-olds and 34% in those over 60 years of age. A predisposing factor was identified in 57% of patients.

The rise in notified cases in 1997-99, EPI-NEWS 49/00, may be due principally to the introduction of a reminder procedure from 1.12.96. In these three years reminders were sent for respectively 40%, 55% and 56% of notifications. The increasing use of pneumococcal vaccine over the period 1996-99, EPI-NEWS 14/00, does not appear to have affected the incidence of pneumococcal meningitis.

H. influenzae meningitis

There were 16 cases of meningitis due to H. influenzae. Five were in children below 18 months of age. H. influenzae type b (Hib) was isolated from cerebrospinal fluid from two children who had been vaccinated once and twice, respectively. In the case of a 3-week-old child the type was not stated. None of the patients had had all three vaccinations. The other 11 cases were in patients

Fig. 1. Aetiology of bacterial meningitis: percentage distribution of causative organisms in different age groups, 1996-1999



aged 25-84 years, of whom six had predisposing factors: one had myelomatosis and five had chronic otitis media.

An 84-year-old patient died.

Staphylococcus aureus meningitis

Five of the 20 patients notified as having S. aureus meningitis had endocarditis; two of these were i.v. drug users. Predisposing factors were identified in a further eight patients.

The mortality was 50%.

Streptococcal meningitis

Haemolytic streptococci (HS) of group B were isolated in eight of the 21 cases notified. Six of these were in children of under 2 months of age. Three patients had meningitis due to HS group A; two of these had chronic otitis media. HS group G were isolated from two patients, one with severe endophthalmitis, the other with erysipelas. A previously fit 18-

year-old man died of meningitis due to HS group F. In three cases the HS were not grouped.

The four remaining patients had meningitis due to non-haemolytic streptococci, two in connection with myelography and the other with oesophageal cancer. A pig farmer developed meningitis due to S. suis, typically found in swine.

The mortality was 24%.

Listeria meningitis

Twelve of 24 patients had predisposing factors in the form of underlying disease and/or immunosuppressive treatment. The mortality was 25%.

Meningitis due to other bacteria

In 13 cases other bacterial aetiologies were identified. There were three cases due to E. coli, all with urinary tract infections; two due to Pseudomonas aeruginosa and one due to another Pseudomonas species, all following neurosurgical intervention; one case due to Capnocytophaga canimorsus (DF2) from a dog bite; one case due to an Enterococcus species in a patient with myelomatosis; two cases due to Acinetobacter spp. in previously fit children aged 1½ and 3 years respectively; and one case due to a coagulase-negative staphylococcus in a patient with a ventriculo-peritoneal shunt. The diagnosis was uncertain in one case in which a Propionibacterium sp. was stated to be the cause.

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Table 1. Bacterial meningitis: average annual no. of cases and incidence per 10⁵, by age and aetiological agent, 1996-1999

| Age (Yrs) | Meningococcus | | Pneumococcus | | Others | | Unidentified | |
|-----------|---------------|-----------|--------------|-----------|--------|-----------|--------------|-----------|
| | No. | Incidence | No. | Incidence | No. | Incidence | No. | Incidence |
| 0 | 13 | 19.5 | 10 | 15.1 | 2 | 2.6 | 1 | 1.5 |
| 1-5 | 42 | 12.1 | 9 | 2.5 | 1 | 0.4 | 4 | 1.0 |
| 6-10 | 14 | 4.5 | 2 | 0.5 | 0 | 0.0 | 2 | 0.6 |
| 11-15 | 23 | 8.4 | 1 | 0.4 | 0 | 0.0 | 2 | 0.7 |
| 16-20 | 21 | 6.7 | <1 | 0.2 | <1 | 0.2 | 2 | 0.5 |
| 21-30 | 10 | 1.3 | 4 | 0.6 | <1 | 0.1 | 1 | 0.2 |
| 31-40 | 4 | 0.5 | 9 | 1.1 | <1 | 0.1 | 3 | 0.3 |
| 41-50 | 5 | 0.7 | 11 | 1.5 | 2 | 0.2 | 2 | 0.2 |
| 51-60 | 6 | 0.9 | 16 | 2.4 | 3 | 0.4 | 2 | 0.3 |
| 61-70 | 4 | 0.8 | 20 | 4.4 | 4 | 0.8 | 2 | 0.3 |
| 71+ | 4 | 0.8 | 25 | 4.7 | 7 | 1.2 | 5 | 0.9 |
| Total | 146 | 2.8 | 107 | 2.0 | 20 | 0.4 | 26 | 0.4 |

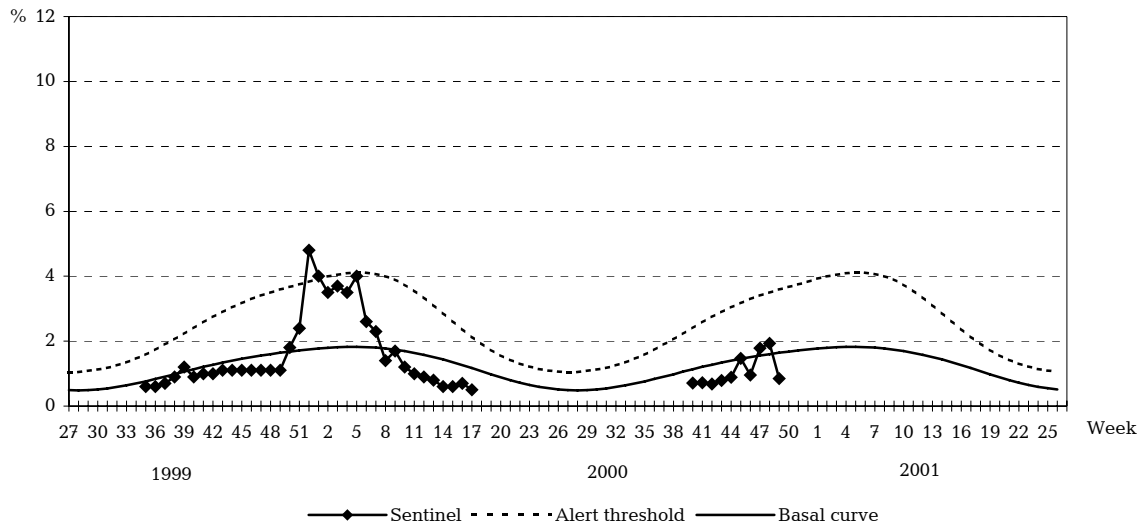
Monthly no. of serum specimens positive for *Mycoplasma pneumoniae* by complement fixation test, 3rd quarter 2000, SSI

| | July | August | September |
|-----------------------------------|------|--------|-----------|
| Positive specimens 2000 | 22 | 22 | 43 |
| Positive specimens 1999 | 36 | 64 | 91 |
| Average for the preceding 5 years | 41 | 57 | 80 |

(Dept. of Respiratory Infections, Meningitis and STIs)

Sentinel surveillance of influenza activity

Weekly percentage of consultations, 1999/2000/2001



- Sentinel:** Influenza consultations as % of total consultations
- Basal curve:** Expected frequency of influenza consultations under non-epidemic conditions
- Alert threshold:** Possible incipient epidemic

(Dept. of Epidemiology)