

taken. Employed with proper care, total hip replacement arthroplasty is now the treatment of choice for many sufferers from hip disease.

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Auditory Inattention

Patients with certain cerebral lesions may have normal fields of vision, normal hearing in each ear, and normal sensation in the limbs tested individually, and yet when bilateral visual, auditory, painful, or tactile stimuli are presented to the patient simultaneously he may recognize a stimulus only on one side, and consistently so. This phenomenon has variously been termed inattention,¹ extinction,² suppression,³ perceptual rivalry,⁴ or neglect,⁵ preceded by the adjective appropriate to the stimulus tested—for example, visual inattention.

H. Oppenheim⁶ described the phenomenon at the end of the last century. J. Babinski,⁵ before the first world war, extended the concept of unilateral neglect to positive denial of disability, such as denial of hemiplegia, and he called the condition anosognosia. Between 1945 and 1953 inattention or extinction was extensively studied, described, and argued about by M. B. Bender and various associates^{2 7 8} and by Macdonald Critchley.^{1 9} From their work it appeared that from the strictly practical point of view the condition was usually, though not invariably, a sign of a parietal lobe lesion, and it is of course much easier to demonstrate the sign in patients with lesions of the non-dominant hemisphere, whose speech and ability to comprehend are intact, than when the dominant hemisphere is affected. Many of the earlier conclusions about the localization of the lesion relied either on a clinician's judgement or on post-mortem findings, and in general most attention was paid to visual and tactile inattention. Auditory inattention had, however, been described by Oppenheim,¹ and in more detail by M. B. Bender and S. P. Diamond,^{10 11} and D. Denny-Brown and his colleagues.⁴ Again a lesion localized in the parietal lobe was postulated, not invariably with objective confirmation.

Now K. M. Heilman and E. Valenstein¹² have described 17 cases showing auditory neglect, all of whom were studied by technetium-99 rectilinear brain scanning. Each patient had had some auditory stimulus presented to each ear individually and been shown not to have loss of auditory acuity. Various stimuli were then presented bilaterally and simultaneously by the simple processes of snapping fingers, jingling coins, or placing a stethoscope in the patient's ears and tapping on the diaphragm. The patients consistently identified the sound on one side only. Ten of the 17 had positive brain scans owing to neoplasm or infarction, and nine of these showed lesions in the right inferior parietal area. One lesion was in the left posterior frontal zone. The patients all showed the other forms of sensory inattention as well.

This is not by any means a new test, but it is interesting to correlate investigation of the phenomenon by modern techniques with the older conclusions about the most usual site of the lesion, sometimes deduced, but not proved. These tests are simple to perform and yet not often carried out. The discovery of any of these forms of inattention or neglect makes one strongly suspect a parietal lobe lesion, even in the absence of other forms of so-called "cortical" sensory disturbance. The phenomenon has been found in lesions at other sites, however, and, though valuable, it should not by itself be considered to be of absolute localizing significance.

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Heart Operations Followed Up

Recently we have become so accustomed to truly dramatic developments in cardiac surgery that it is sometimes hard to believe that it all started only 25 years ago. The publication¹ by Helen Taussig of long-time observations on the first 1,037 cyanotic patients operated upon by Dr. Blalock and his associates between 1945 and 1951 has therefore not only considerable intrinsic interest but helps to put this remarkable work into perspective.

Apart from patients in whom the diagnosis was in doubt and those who had operations other than a Blalock-Taussig anastomosis, 728 patients with tetralogy of Fallot were treated, with a 10% surgical mortality, and 81.7% of them were judged to have had an excellent or good immediate result. Most of the patients were children, the peak in the age distribution curve being between 2 and 5 years. The scatter was wide, however, and there were 17 among those aged under 1 and over 25 years. Mortality was highest under the age of 2 (27.4%) but only 6.5-7% between the ages of 6 and 14 years.

Because patients travelled from far and wide to Baltimore seeking treatment, long-term assessment has not been easy, and Dr. Taussig and her colleagues have gone to great lengths to achieve a 93% 10-year and an 88% 15-year follow-up of the 685 cases who left hospital alive two months after their first operation. Year-by-year analysis shows a relatively high mortality rate between 3 and 11 months after operation; thereafter it was remarkably constant. Though 209 patients had second operations within 15 years, the majority because of failure to maintain improvement, 313 were living on their first anastomosis 15 years later. It is of considerable interest that losses in the latter group were at a lower rate than the 30% surgical mortality combined with the late mortality in the group who had further operations. The results of all types of heart surgery have steadily improved with practice (Blalock's mortality rates fell from 20.3% in 1945 to 4.7% in 1951),