14 Oxycephaly and Related Conditions

Introduction

Oxycephaly has been defined (Chap. 9) as a deformity in which the head is abnormally high and conical. The vertex appears pointed whether viewed from the side or from the front. This is typical oxycephaly, termed ‘true oxycephaly’ by Montaut and Stricker (1977), who liken the vertex to a sugar-loaf, a simile unhelpful for those of us whose sugar comes rectangular. The deformity is always associated with fusion of multiple sutures. However, this is one of the rarer manifestations of multiple sutural fusion. Depending on the part of the cerebral capsule first involved, the deformity process can produce various head shapes. If the retardation of capsular growth affects primarily the coronal suture, a form of turricephaly will result; if the sagittal, then a form of scaphocephaly. Some writers designate these head shapes as oxycephaly when multiple sutural fusion is evident, but we do not. They are considered in Chaps. 10 and 12. However, one can reasonably speak of oxycephaly when either of these deformities is associated with a pointed bony prominence in the bregmatic area, like a turret or clown’s cap, due to late closure of an open anterior fontanelle. This is one form of atypical oxycephaly (Fig. 14.1). A somewhat similar deformity results when growth

Fig. 14.1. One form of simple oxycephaly: premature fusion of the sagittal and later the coronal suture with a clown’s cap deformity in the bregmatic region (arrows). Initially this child was thought to have simple scaphocephaly. Operation was refused, and the deformity has become quite noticeable.
retardation is first established in the sagittal and lambdoid zones, allowing disproportionate frontal growth (Fig. 14.2).

The grotesque cloverleaf skull deformity (triphilocephaly) appears to be a non-specific consequence of multiple sutural fusion: a constriction ring develops in the lambdoid-squamosal zone and allows disproportionate bulging in the frontal and temporal bones. Seen from in front, the head looks trilobar. There is almost always

Fig. 14.2. Another form of simple oxycephaly: premature fusion affects chiefly the lambdoid and sagittal sutures. The ballooned temporal regions suggest triphilocephaly (cloverleaf deformity) in a mild form.

Fig. 14.3. Premature fusion of coronal, sagittal, and squamosal sutures. The patient, a handsome aboriginal lad, has no functional or cosmetic complaints.