hemorrhages. Of particular interest is their relation to arteriospastic
attacks in hypertensive persons as suggested in case 1 in this series.
The clinical signs of cerebral arteriospastic attacks over a period of
four years in this case and the postmortem observation of 12 distinct
intimal hemorrhages of varying ages in the larger cerebral arteries sug-
gest that they were related. Many of the hemorrhages lay at the outer
borders of atheromatous plaques in proximity to the media (fig. 1 A),
and it is reasonable to suppose that the sudden disruption of tissue by
the hemorrhages may have set up transient spasms of the muscle coat.
The observations of others tend to confirm this hypothesis. The walls
of cerebral arteries are known to be supplied by vasomotor fibers, and
local spasm due to local injuries or influences definitely occurs. Stroking
the adventitia of a pial artery with a blunt instrument at operation causes
spasm of that part of the vessel. 6 Also, injuries to arterial walls are
known to cause pain. Waterston 7 found that the contact of the point of
a needle with the wall of an artery elicited sharp pain, and when
the needle point was pushed into the wall a peculiar sickening pain,
associated with nausea and faintness, resulted. Feilng, 8 and Aring and
Merritt 9 commented on the frequency with which certain prodromal
symptoms occur in patients with cerebral arterial thrombosis. The
symptoms consist of headache, dizziness, transient weakness of one or
both limbs or of one side of the face, temporary aphasia and other
symptoms. Sometimes slight hemiplegic weakness may appear and
rapidly vanish, to be followed a few days later by severe hemiplegia.
It is possible that these premonitory symptoms in certain cases, includ-
ing pain in the head, are due to arteriospasm from irritation by the
intimal hemorrhages which precede and apparently cause cerebral throm-
bolysis. It must be admitted, however, that attempts to demonstrate
nervous fibers in the actual area of intimal hemorrhage have as yet been
unsuccessful.

Equally hypothetic is the relation of intimal hemorrhage to cerebral
arterial rupture. An accidental finding in a case in my series was a
large intimal hematoma of a middle cerebral artery which had broken
through the thin medial layer and lay between the adventitial fibers
(fig. 51). It is possible that a true intracranial hemorrhage would have
occurred in this case if the process had continued. Cases of classic
cerebral hemorrhage due to rupture of the lenticulostriate artery have
not as yet been studied, but the observations of others suggest that in
this vessel also the precursor of rupture may be an intimal hematoma.