

groups studied, women in the child-bearing years, whether they take oral contraceptives or not, it is obvious that the death rate from stroke which could be attributed to The Pill must be quite small. These figures of increased hazard ranging from an expected one of two-tenths to five-tenths per 100,000, being increased to 1.5 to perhaps 3.5 per 100,000—apply to all forms of vascular accident and not to strokes alone.

In the absence of clearer epidemiologic data, I think it is well to look more closely at the strokes themselves, the ones we might consider as being possibly related to the taking of The Pill. If these are different from any other form of recognized stroke, this would strengthen the conclusion that they might be related to the taking of the drugs. There are some suggestions that the strokes which have occurred in women taking the pill may be different in their manifestations and their method of development from more commonly occurring strokes.

The rest of this information is derived from an analysis of my own 59 cases. Some of these are my own personal cases. Some of them have been referenced to me by other physicians, and some of them have been taken from the published literature. One cannot use all the published cases in the literature, because in many, it is impossible to find anything like as detailed information that is necessary for adequate analysis.

In looking at this group of strokes, it seems their time of onset is often prolonged, for days, and even weeks. In a considerable portion of the cases, the onset was marked by premonitory migrainous headache. The patient may have attacks of double vision, they may have transitory weakness in various parts of the body, which recovers for a time; they often report giddiness and fainting attacks, and this finally develops into a full-blown stroke.

This occurs in at least a quarter of these strokes and does not seem to be related to the presence of arteriosclerosis. We are not unfamiliar with the occasion of premonitory symptoms of the stroke in the patient who is older and has severe arteriosclerosis. In these cases, such are believed to be due to the breaking off of emboli on plaques of arteriosclerosis. These break off and pass up to the brain before a full-blown stroke develops. In the women under question, there is little significant evidence for arteriosclerosis. So I think it is possible that such premonitory symptoms for days or weeks before the full-blown stroke develops may be a reason for assuming a seeming association with the pill.

Secondly, in a very few autopsied cases, and very few autopsies are reported, there is microscopic evidence that a slow process of occlusion of arteries and then healing may have been going on in several parts of the brain for sometime before a major artery is involved.

These changes, in at least a few of the autopsied cases, do not strictly resemble the sort of change one is accustomed to see in the commonly occurring strokes with which we are all familiar.

Thirdly, the arteries that pass to the base of the brain, the vertebral and basilar arteries, seem to be involved more often than one would expect, especially in a group of patients who, in the main, are not significantly hypertensive and do not have significant arteriosclerosis.