So, we made physical therapy in groups of three or more patients each, in 70 stroke patients all of them with middle cerebral artery infarct – 50 walked and 20 did not walk in the beginning of treatment. The physical therapy in group was applied for three months. They all started treatment in acute phase of stroke.

The results obtained after the physical therapy in group were analysed through both:

- 1. The following measure tools: the Barthel Index, the Rivermead Mobility Index, the Canadian Neurological Scale, the Orgogozo Unifed Form for Neurological Stroke Scales, Motricity Index.
- 2. The notes about: the relative's participation in the rehabilitation program; both the patient's and the relative's understanding of the disease; the adherence to the clinical treatment and physical therapy; the patient's expectation of a good quality of life and the patient's interaction with both his family and society.

The results suggest that this kind of treatment may be good for public health services. This therapy was not sufficient for those who did not walk, perhaps because of the short time of therapy. This mean that they were not adapted to the daily living activity after the threrapy. However, to most of the walking patients, the physical therapy in group was enough.

KEY WORDS: group physiotherapy, stroke, hemiplegic patients.

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## CEREBRAL INFARCTION IN PATIENTS AGED 15 TO 40 YEARS (ABSTRACT)\*. THESIS. RIBEIRÃO PRETO, 1996.

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Ischemic stroke (IS) in young patients was considered rare in the past and has been poorly studied in our country. Few studies analysed differences between age ranges. We proposed the present study to determine etiologies of cerebral infarction and possible specific age subpopulations.

One hundred and six (51 women; 55 men) IS patients whose ages ranged from 15 to 40 were studied. They were evaluated by means of a standardized protocol that included a complete basic investigation indicated in suspected cases of IS, special hematological tests for coagulation inhibitors and assays for antiphospholipid antibodies (aPL). All cases were classified according to criteria recommended by the TOAST (Trial of ORG 10172 in Acute Stroke Treatment), into the following 5 groups: (1) large-artery atherosclerosis, (2) small-vessel occlusion or lacune, (3) cardioembolism, (4) other determined causes, and (5) undetermined causes. We also divided the patients into two subpopuplations by age at time of ictus (ie, 15 to 29 and 30 to 40 years old) to compare the group distribution between these age ranges.

Sixty patients (56.6%) were submitted to cerebral angiograms and 96 (90.5%) had transthoracic echocardiograms. Eleven (10.4%) patients were positive for aPL and 3 (2.8%) had deficiencies in natural anticoagulant proteins. The largest number of patients was included in group 4 being followed by the cardioembolic group. The proportion of these groups was significantly high (n=31; 81.6%) in the 15 to 29 year age range while in the 30 to 40 year interval this trend was partially reverted and we observed an increase in the aterothrombotic and lacunar groups. There were statistically significant differences between these two age intervals in the groups of lacunar infarcts and other etiologies. In the 15 to 29 age interval there was predominance of woman while in the other range men predominated. The most common causes of cardioembolism were mitral valve prolapse, rheumatic heart disease, dilated cardiomiopathy and specially Chagas disease. The hematologic causes, the arterial dissections and Moyamoya disease were more frequent in group 4.

Due to the great variety of etiologies including some preventable ones a large investigation in IS young patients is highly recommended since some of them will live 50 years or more. This study suggest the existence of different populations related to age limits and propose that these age ranges should be considered separetely.

KEY WORDS: cerebral infarction, brain ischemia, young adults, stroke subpopulations.

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