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CAUSES OF DURAL SINUS THROMBOSIS IN A CHINESE COMMUNITY

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Background Primary venous thrombosis is relatively rare in Chinese. Dural sinus thrombosis (DST) is a model of venous thrombosis associated with circulating factors in which the tendency to clot is held in check by thrombolytic properties and natural anticoagulants in the blood. **Method** Chinese patients from three acute hospitals on Hong Kong Island diagnosed to have aseptic DST over a 3-year period were studied to identify the possible aetiological factors. Screening for hypercoagulable states was performed at diagnosis and would be repeated at 6 months if initially negative. **Results** Thirteen cases of DST, in whom 11 were Chinese, were detected during the study period. Causes for DST were identified in all the Chinese patients: oral contraceptive pills (OCP) (n=6, 55%), natural anticoagulant deficiencies (n=3, 27%), venous stagnation from hypotension (n=1), and corticosteroid therapy (n=1). DST in one patient with antithrombin III deficiency occurred during the puerperium. None of our patients had activated protein C resistance (APC-R), the most frequent hypercoagulopathy underlying DST in Caucasians. **Conclusions** This is the first reported series of DST in Chinese. OCP was the commonest cause in our patients. Despite the rarity of APC-R in Chinese, the prevalence of hypercoaguable states due to natural anticoagulant deficiencies or dysfunction in our population with DST was still higher than that in other countries (up to 15%). Idiopathic DST, which accounted for up to 30% of cases from previous reports, was not observed in the present study. Thus, it is mandatory to investigate for predisposing prothrombotic disorders in Chinese patients with DST since long-term management can be influenced.

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TREATMENT OF DURAL SINUS THROMBOSIS WITH LOW-MOLECULAR-WEIGHT HEPARIN

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Background Dural sinus thrombosis (DST) is an uncommon but important cause of stroke. Heparin is generally recommended for the acute treatment of DST. However, the frequent occurrence of heparin-induced thrombocytopenia (HIT), which may paradoxically worsen DST, clearly affects therapeutic options. When compared with unfractionated heparin, low-molecular-weight heparin (LMWH) is much less likely to cause HIT. **Method** Seven patients with radiological proven and aseptic DST admitted over a 2-year period were treated with subcutaneoous Nadroparine Calcium at a dosage of 4,100 IAXaU twice daily. Duration of treatment ranged from 10 to 28 days. Their clinical course, complications, and neurological outcomes were followed-up. **Results** Age of the patients ranged from 20 to 72 with a mean of 38. Three of them (38%) had documented cerebral haemorrhage from venous infarction prior to the initiation of LMWH. Neither neurological deterioration nor bleeding complications occurred in any of the patients during treatment. On subsequent follow-up, only one patient had permanent neurological dysfunction from a moderate left hemiplegia. The rest (86%) had complete recovery – an outcome comparable with conventional heparin treatment. **Conclusions** This is the first reported study using LMWH in DST. We demonstrated anecdotally that initiating anticoagulation in DST with LMWH is safe and likely to be effective. Haemorrhagic transformation from cerebral venous infarction is not a contraindication to LMWH. As DST is an uncommon condition, our population size does not permit a larger prospective case-control study, which is essential to determine the optimal regime for LMWH in DST.