## 1188 TOWARDS A SIMULTANEOUS AND HARMONIZED REGULATION OF HAEMOSTASIS AND OF THE CARDIOVASCULAR SYSTEM.

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1-Desoxy-1-(5-hydroxytryptamino)-D-fructose is a synthetic sugar derivative of serotonin, however, its spontaneous formation under physiological conditions is quite possible (5th Inter. Congr. Thromb. Haemost., Paris, 1975, Abstr. n°233). This, and similar sugar derivatives of serotonin show a serotonin-like activity, however, a discrepancy has been observed between their affinities towards D and M type tryptaminergic receptors, when compared with the affinity of serotonin for the same receptors. The sugar derivatives have been distinguished by an increased passage of the blood-brain barrier and by a limited uptake by the platelets. They exhibit a mechanism which mildly inhibits platelet functions, while mildly supporting haemostasis by vascular smooth muscle contraction. Besides the regulation of blood pressure, heart rate and sinusal coronary flow, some typical central effects (anti-stress activity, suppression of the carotid occlusion response, etc.) have also been observed, which have a beneficial effect on the cardiovascular system. Progressing in this way, it is hoped to have a new approach to inhibiting thrombosis without significantly interfering with haemostasis.

## 1189 EFFECTS OF HORMONAL CONTRACEPTION ON HEMOSTATIC AND LIPIDIC PROFILES

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Haemostatic and lipid parameters were determined for groups of women treated for at least 3 years with different types of hormonal contraception (HC), and compared to data of matched control groups without contraception and with IUD. A group of women starting HC were examined before HC, and after 1 cycle, 3 cycles and 1 year of HC.

Slight increases of factor VII and thrombotest were observed immediately with all HC. Cold activation of thrombotest was observed with much higher frequency and at higher levels in HC groups than in controls. Decrease of antithrombin III was most markedly observed with the immunological assay, and occurred progressively throughout the first year of treatment. Fibrinolytic activity was affected differently by progestagen which increased euglobulin lysis time, and by combined HC which shortened it. Plasminogen activator values confirmed these results. Response to local anoxia was not significantly modified. Significant increases of total lipids and phospholipids, and a slight increase of cholesterol occurred progressively during the first year of HC.

As these modifications are possibly involved in thrombotic accidents in predisposed or high-risk women, and are more likely to occur during the initial period of HC, closer supervision remains advisable during this period.

## 1190 THE MORPHOLOGY OF OBLITERATIVE ARTERIAL DISEASES IN STATU NASCENDI

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The arteries of minipigs which had been exposed to the local or systemic action of recognised 'risk factors' for arterial disease were examined with the light microscope, and the transmission and scanning electron microscopes.

Initially the scanning instrument revealed adhesions of platelets in different stages of development, but showed an apparently intact endothelium. With the transmission electron microscope, however, degenerative changes in the endothelium could be observed. Increased blood platelet aggregation was also present.

After a few weeks we could see a remarkable focal thickening of the intima, together with deposits on the endothelium of platelets, erythrocytes and fibrin ("mixed microparietal thrombosis").

After 6 months fully developed arteriosclerosis of the abdominal aorta had appeared.