

DENGUE HAEMORRHAGIC FEVER/DENGUE SHOCK SYNDROME (DHF/DSS) CAUSED BY SEROTYPE 2 IN BRAZIL

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After an interval of 60 years (H. G. Schatzmayr et al., 1986, *Mem. Inst. Oswaldo Cruz*, 81: 245-246) dengue virus was reintroduced in Rio de Janeiro, Brazil in 1986/1987 causing widespread epidemics in which more than one million people were estimated to have been infected by dengue type 1 (R. M. R. Nogueira et al., 1988, *Mem. Inst. Oswaldo Cruz*, 83: 219-225). In April, 1990, four years after the detection of dengue type 1 in Rio de Janeiro, dengue type 2 was isolated from a patient with classical dengue fever in Niterói, RJ (R. M. R. Nogueira et al., 1990, *Mem. Inst. Oswaldo Cruz*, 85: 253). Up to now, 125 further isolates, all from patients with classical dengue fever, have been identified as dengue type 2. In addition to these, dengue virus type 2 was isolated in Niterói from a 35 years old male patient with a fatal disease and a previous history of dengue fever in 1987. This patient presented high fever, muscular and joint pains and prostration. The disease was diagnosed as dengue fever, treated with dipirone, and the patient was admitted to hospital three days later with severe abdominal pains. On physical examination the patient was restless, pale, acyanotic, breathing normally, blood pressure 130 x 70 mmHg, with painful reaction to abdominal palpation, without signs of peritoneal irritation, and no respiratory abnormalities. At 3 h after admission, the blood pressure was 60 x 40 mmHg, the axillary temperature was 35 °C, the pulse was faint, 88 per minute. The patient was transferred to an Intensive Care Unit in state of shock with pulse 120 per

minute. Blood tests revealed glucose 201 mg%, urea 23 mg%, creatinine 0.9%, Ca 8.5 mg%, amylase 66 mg%, total protein 4.4 g%, albumin 3.0 g%, globulin 1.4 g%, haematocrit 64%, platelet count 21.000/mm³, prolonged prothrombin-time, leukocytes 16.750/mm³ with 1% eosinophilus, 1% metamyelocytes, 17% unsegmented and 66% segmented neutrophils, 14% lymphocytes and 1% monocytes. Then followed nausea, vomiting, haematuria, petechiae, peri-oral cyanosis and hypovolemic shock which resisted treatment and ended in cardiac and respiratory arrest and death 36 h after admission to hospital. An Elisa test for anti dengue IgG was positive for dengue virus type 1 (1/256,000) characterizing a secondary infection. During 1990 a total of 3,059 cases of suspected dengue were submitted to the Department of Virology/FIOCRUZ for dengue testing. Dengue was confirmed serologically or virologically in 1,111 (36.3%) of the patients tested. The patient described above was the only fatal case. Restriction enzyme analysis showed a high percentage of similarity among dengue 2 isolates from nine classical dengue fever (DF) cases and one fatal case, indicating a probable single origin for this virus now circulating in the Rio de Janeiro area (V. Vorn-dam & R. M. R. Nogueira, unpublished data).

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