

Malignant hypertension with thrombotic microangiopathy masquerading as thrombotic thrombocytopenic purpura - A case report.

Abstract

Background

Thrombotic thrombocytopenic purpura (TTP) is an uncommon haematological disorder with high mortality which results in microangiopathic haemolytic anemia (MAHA), thrombocytopenia and occlusion of microvasculature. Malignant hypertension (MHT) is characterized by severe elevations in blood pressure and acute multi-organ ischaemic complications including thrombotic microangiopathy. (TMA)

Case presentation

A 38 year old man presented with progressive deterioration of vision for two weeks which acutely worsened over one day with associated reduced urine output and generalized oedema. On examination he was alert and oriented, oedematous, had a blood pressure of 200/140 mmHg in both arms. Respiratory examination revealed bibasal fine crepitations. His visual acuity was lost bilaterally with only preservation of perception to finger movements. Fundoscopy revealed Grade III/IV hypertensive retinopathy with bilateral retinal detachment. Investigations revealed thrombocytopenia, MAHA, acute kidney injury (AKI) in the background of chronic kidney disease (CKD) indicating TMA. ADAMTS 13 levels were unavailable. Patient was managed with adequate blood pressure control using multiple antihypertensives, haemodialysis (HD) and plasma exchange (PLEX), which were started simultaneously. He made a good clinical recovery with resolution of MAHA, recovery of platelets and AKI but his vision could not be salvaged. A work up was arranged for young hypertension as outpatient and he was initiated on HD as outpatient with plans for renal transplant in future.

Conclusion

TMA leading to MAHA, thrombocytopenia and organ injury is well recognized in both MHT and TTP. Hence TTP is a great mimicker of MHT. In the absence of ADAMTS 13 levels it is wise to initiate PLEX together with adequate blood pressure control without delay as TTP is fatal if untreated.

Keywords: Thrombotic microangiopathy, malignant hypertension, thrombotic thrombocytopenic purpura, ADAMTS 13 levels, plasma exchange