Title: Pedal Pushers to Pulse Crushers: Unravelling Handlebar Vascular Injury

Vascular handlebar syndrome is a rare form of vascular trauma that is often missed or diagnosed late. The mechanism of injury results from the compression from the handlebar of two-wheeled vehicle onto the structures within the inguinal and groin area resulting in blunt trauma to the neurovascular structures. We present a patient with severe lower limb pain following a motor vehicle injury. The patient fell forward while riding, with the handle of the bike knocked on his left inguinal region that resulted in immediate bruise formation over the region. Examination showed that the patient was able to ambulate with an antalgic gait. He had a massive bruise over the inguinal region extending to mid-thigh. The active range of movement of hip joints was full. Vascular assessment revealed presence of femoral pulse however feeble popliteal and absent dorsalis pedis and posterior tibalis pulses. The doppler signals confirmed the assessment where there was biphasic signal of the popliteal artery and absent in the distal pulses. Trauma team was activated and patient was subjected for computed tomography angiography (CTA) of the lower limb. There was short arterial dissection with partial thrombosis of the left common femoral artery with left inguinal hematoma with probable slow bleeding from small distal vessels. The patient was started on tablet aspirin and admitted for observation. Lower limb doppler was conducted three times daily for five days. In view of no progression of acute limb ischemia, he was treated conservatively and discharged home with tablet aspirin for six weeks with an outpatient appointment. Incidence of common femoral vessel injury is rare in the absence of fractures. However, a direct blunt trauma when patient falling forward in the two-wheeled vehicle may cause common femoral vessel injury. This is in view of a relatively superficial location of the vessel in the femoral triangle. Hence, a thorough history taking on the mechanism of injury is vital in recognise the risk of vascular blunt trauma. In conclusion, a prompt diagnosis and examination should be augmented with doppler ultrasound and radiological angiography in highly suspected cases. Multidisciplinary approach involving the trauma team is beneficial to allow timely repair within six hours of injury.