Introduction

The spleen is the intra abdominal organ most frequently injured in blunt trauma. For several decades splenectomy was considered the only accepted surgical option for splenic injuries. With the significant experience in non operative management of splenic injuries in the pediatric population, and with the recognition of the overwhelming postsplenectomy syndrome as a serious post operative threat, other options have immerged in the past decades. In splenic surgical removal there are modest increase in circulating white blood cells and platelets, diminished responsiveness to some vaccines, increased susceptibility to infection by bacteria and protozoa; in particular, there is an increased risk of sepsis from polysaccharide encapsulated bacteria **(Loscalzo et al., 2008).**

The term overwhelming postsplenectomy infection was introduced in 1969 its incidence in children is 0.6%. The overwhelming postsplenectomy infection is distinct from septicemia in patients with normal immune function and is characterized by a sudden onset of symptoms and a rapid fulminating course that lasts only 12 to 18hours **(Michael et al., 2004).**

More than70% of all haemodynamically stable patients are treated by means of a nonoprative approach, the success rate of non operative treatment is greater than 90% **(Pachter et al., 1998).**

Non-operative management (NOM) of splenic injuries in children has become well established over the past two decades with many studies reporting ≥ 95% success rates. The evolution of current practice is well documented **(Thompson and Holland, 2006).**

Hemodynamic stability remains a key requirement for NOM; while the position of NOM in cases with higher injury grades and the need for ICU requirement remain less resolved. These decisions should depend on the individual merits of each case **(Moog et al., 2005).**

Contrast-enhanced computed tomography (CT) is approximately 95% sensitive and specific for detection of splenic injury. In children, nonoperative treatment is well-established. The basic tenet of such management is an obligatory period of rest to prevent recurrent bleeding and allow splenic healing. Splenic preservation prevents post-splenectomy sepsis **(Lawrence et al., 2002).**

The majority of children who had suffered blunt splenic trauma were safely managed non-operatively outside an ICU. In

stable patients, there appeared to be no benefits associated with repeated imaging following the diagnosis of splenic trauma. Physical activity restriction in excess of 3-4 weeks did not appear to be warranted **(king et al., 1981).**

Different splenic injuries controlled according to its degree, Capsular tears controlled by compression only or topical haemostatic agents, deep lacerations treated with horizontal absorbable sutures, major lacerations less than 50% of splenic parenchyma treated with segmental or partial splenic resection, more extensive injuries involving the hilum managed by splenectomy. The technique of thin splenic fragments implantation in an mental pouch, remains experimental and controversial but provide significant long term splenic function **(Michael et al., 2004).**

In the year 2000, it has been reported that more than 60% of all abdominal procedures in pediatric patients can be safely and successfully performed using minimally invasive techniques. Eight years later, it is reported that use of laparoscopy for more than 80% of all abdominal procedures performed in children with low rates of complications and conversions (**TeVelde et al., 2008).**

Splenic artery embolization (SAE) has enjoyed increasing acceptance in the past five years **(Thompson and Holland, 2006).**

Splenic artery embolization (SAE) has gained increasing focus in recent years with several studies showing that it improves success rates when incorporated into the NOM protocol **(Benjamin et al., 2008).**

A steady increase in the utilization of NOM for pediatric splenic injuries PSI in California over time was attributed entirely to changing practices at non-child hospital NCH. Increasing NOM has occurred without a concurrent increase in complications **(Jen et al., 2010).**

Angiographic embolization is safe and effective therapy for blunt abdominal solid organ injury in children **(Kiankhooy et al., 2010).**