Biopsy Vs New Biopsy in Adult Nephrotics - An Eternal Controversy

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ABSTRACT

In children, since 80% cases of nephrotic syndrome are minimal change Glomerulonephritis and respond to steroids, treatment with a course of Prednisolone in given after preliminary investigations. Further investigations including kidney biopsy are undertaken only if the child is 'steroid resistant', 'steroid dependent' or a 'frequent relapser' in whom more powerful immuno suppressive treatment is contemplated. The situation in adults is different since a wide range of primary or secondary glomerular diseases present with nephrotic syndrome. Identification of the cause helps in choosing the appropriate specific treatment from early stages.

There was a time when people believed that careful 'urine examination' as equivalent to a non invasive kidney biopsy. Although the value of careful urine examination is not questioned, it cannot replace renal biopsy which has become safer and is not associated with pain or morbidity. The ultrasound guidance and use of biopsy 'guns' have made the procedure less traumatic and safe. Most centers perform renal biopsy as an outpatient procedure.

Keywords: Nephrotic syndrome, Biopsy, Controversies in need for renal biopsy

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Nephrotic syndrome is defined as daily urinary protein loss of >3.5gm or protein creatinine ratio of > 3.5:1. It is often associated with serum albumin of <2.5 gm/dL, generalized odema and hyper lipidemia and is a common renal disease presenting in children and adults. It should be suspected in all situations of new onset odema or facial puffiness associated with proteinuria detected by simple urine examination. In children, since 80% cases of nephrotic syndrome are minimal change glomerulonephritis and respond to steroids, treatment with a course of Preduisolone in given after preliminary investigations. Further investigations including kidney biopsy are undertaken only if the child is 'steroid resistant', 'steroid dependent' or a 'frequent relapser' in whom more powerful immuno suppressive treatment is contemplated. The situation in adults is different since a wide range of primary or secondary glomerular diseases present with nephrotic syndrome. Identification of the cause helps in choosing the appropriate specific treatment from early stages.

General treatment such as monitoring and regulating salt and fluid intake, appropriate doses of diuretic drugs as needed, prevention, early identification and treatment of complications are as important as specific treatment. The initial treatment in adults is oral prednisolone in doses of 1mg/kg/ day unless specific contraindication for it's use are present. It is given for a period of 6-8 weeks. The response can be assessed only by that time and the tendency to label the patient as "steroid resistant" after 2 weeks of treatment should be curbed. Adults with "steroid responsive" nephrotic syndrome may take a longer time to enter remission compared to children. Alabel of "steroid resistant" cannot be given in adults unless treatment with prednisolone in doses of 1mg/kg/day has been given for 3 months. The general measures of treatment must be continued throughout.

It would be ideal if all adults with nephrotic syndrome are subjected to renal biopsy before starting treatment and this has been highlighted in the original article by Drs. Grace and Thomas in this issue. The question of renal biopsy in adults has always been a hot topic for "controversies session" in many symposia. While one side of the argument is that renal biopsy should be performed after confirming nephrotic syndrome by preliminary investigations, the other side says that an initial course of steroids may be tried at the level of primary or secondary care before the patient is sent to a tertiary care centre. At present, facilities and personnel are available only in tertiary centers. Most such centers do not get untreated or newly diagnosed cares. Most often, partial treatment, in terms of inadequate

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duration or dose is administered before the patient is referred to nephrologists.

Even among nephrologists there are a few who are reluctant to perform early biopsy in nephrotic adults. Majority of the nephrologists will agree that all adult nephrotics are biopsied on initial presentation. There was a time when people believed that careful 'urine examination' as equivalent to a non invasive kidney biopsy. Although the value of careful urine examination is not questioned, it cannot replace renal biopsy which has become safer and is not associated with pain or morbidity. The ultrasound guidance and use of biopsy 'guns' have made the procedure less traumatic and safe. Most centers perform renal biopsy as an out patient procedure. The argument for early biopsy in adults is highlighted in the paper. Only 11/50 cases had minimal change disease which may have responded to conventional therapy with prednisolone over 6-8 weeks. 23 cases of FSGS and 16 cases of membranous would have required a different treatment strategy even from initial stages.

Such papers highlighting our own data are welcome so that we will be able to quote our own figures rather than quoting figures and statistics from western or eastern authors.

END NOTE

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