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R: Histological patterns of idiopathic steroid resistant nephrotic syndrome in Egyptian children: A single centre study

Muhammed Mubarak^{1,*}

¹Histopathology Department, Sindh Institute of Urology and Transplantation, Karachi, Pakistan.

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Letter to editor

Sir,

I have read with great interest the original article by Seif et al. published in a recent issue of your esteemed journal (1). It sheds light on the spectrum of pathological lesions underlying idiopathic steroid-resistant nephrotic syndrome (ISRNS) in Egyptian children. The authors have also analyzed certain glomerular and tubulointerstitial changes on renal biopsies, which might have influenced the response to steroids in these children. ISRNS accounts for 10-30% of nephrotic syndrome (NS) in children around the world (2, 3). It poses significant diagnostic and therapeutic challenges to both the nephrologists and the nephrothologists. It is to be noted that ISRNS is not a single disease entity, rather it comprises a heterogeneous mixture of pathological lesions unified by their therapeutic resistance to a speci-

fied dose and duration of steroids. In this context, the results of the study by Seif et al. are interesting and add some new dimensions to the relatively scant data on the histopathology of ISRNS that is already available in literature. We have also reported our experience in the largest series of SRNS children from a single center in Pakistan (3). It is interesting to note that our findings are more or less similar to those of Egyptian study except for a markedly higher prevalence of IgA nephropathy (IgAN) cases in the later series. This is difficult to understand, given the overall very low presentation of IgAN with NS (4). In addition, there are some other shortcomings/omissions in the study under discussion as detailed below.

1. Although the study by definition includes children with ISRNS, a clear definition of the syndrome for inclusion of subjects in the study is

*Corresponding author: Dr. Muhammed Mubarak, Histopathology Department, Sindh Institute of Urology and Transplantation, Karachi-74200, Pakistan. Tel: +9221 99215752, Fax: +9221 32726165. Email: drmubaraksiut@yahoo.com

lacking in the methodology. Only general comments on the definition of SRNS are given in the introduction. The dose and duration of steroid administration used by authors before undertaking biopsy is not provided, as are the data on 24-h urinary protein excretion.

2. Standard values for proteinuria, hypoalbuminemia and renal insufficiency for adults are not warranted in this pediatric patients' study.

3. The male to female ratio is wrongly stated in results.

4. The proposed explanation for secondary steroid resistance as the transition from minimal change disease (MCD) to focal segmental glomerulosclerosis (FSGS) is at best controversial and still debatable (5). In fact, this hypothesis has never been proven. In this regard, early FSGS is notorious for misdiagnosis as MCD. The major reason for this misdiagnosis is the sampling error in renal biopsies (5).

5. There is also no clear description in the paper of whether only first biopsies or repeat biopsies or in case of repeat biopsies, only second biopsies were included in the analysis.

6. Although crescents can be found in IgAN, it is difficult to contemplate of their presence in FSGS, as shown in table 3 of the subject study.

7. It is logical to explore the classical histopathological features on renal biopsies, especially the extent of tubular atrophy and interstitial inflammation and the extent of glomerular changes as a possible reason for steroid resistance. In this regard, the authors found that mesangial hypercellularity was common in MCD and tubular atrophy and interstitial inflammation in IgAN. It is interesting to note that the authors did not find the later features as contributory to steroid resistance in FSGS, which is the dominant histological pattern in SRNS throughout the world and tubular atrophy and interstitial inflammation are sine

qua non of this lesion. Moreover, if the changes of tubular atrophy and interstitial inflammation are the most important reasons for steroid resistance, then question arises as to why so many cases of MCD with no such changes showed steroid resistance.

8. Recent studies indicate that apart from the classical parenchymal changes, the role of genetic testing is crucial in determining the cause of steroid resistance in these patients (6).

9. Last, but not the least, shortcoming of the study is the lack of information on the clinical course and further management of these children, with particular emphasis on the development of end-stage renal disease (ESRD), which is a major complication of this disorder.

Conflict of interest

The authors declared no competing interests.

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