

**Table (1):** Response of total steroid-resistant patients (initial and late) to alternative therapies concerning their histopathological spectrum

| <b>Alternative therapies</b>                  | <b>Types of response</b>  |                          |                     | <b>Total</b>      |
|-----------------------------------------------|---------------------------|--------------------------|---------------------|-------------------|
|                                               | <b>Complete remission</b> | <b>Partial remission</b> | <b>No remission</b> |                   |
| <b>Cyclophosphamide</b>                       | <b>3 (9.1%)</b>           | <b>0</b>                 | <b>12 (36.4%)</b>   | <b>15 (45.5%)</b> |
| MCD                                           | 0                         | 0                        | 1 (100%)            | 1                 |
| FSGS                                          | 0                         | 0                        | 9 (100%)            | 9                 |
| MesPGN                                        | 2 (66.7%)                 | 0                        | 1 (33.3%)           | 3                 |
| No biopsy                                     | 1 (50%)                   | 0                        | 1 (50%)             | 2                 |
| <b>Cyclosporine</b>                           | <b>9 (27.3%)</b>          | <b>3 (9.1%)</b>          | <b>14 (42.4%)</b>   | <b>26 (78.8%)</b> |
| MCD                                           | 1 (20%)                   | 1 (20%)                  | 3 (60%)             | 5                 |
| FSGS                                          | 5 (29.4%)                 | 2 (11.8%)                | 10 (58.8%)          | 17                |
| MesPGN                                        | 3 (75%)                   | 0                        | 1 (25%)             | 4                 |
| <b>Mycophenolate mofetil</b>                  | <b>0</b>                  | <b>0</b>                 | <b>8 (24.2%)</b>    | <b>8 (24.2%)</b>  |
| MCD                                           | 0                         | 0                        | 2 (100%)            | 2                 |
| FSGS                                          | 0                         | 0                        | 4 (100%)            | 4                 |
| MesPGN                                        | 0                         | 0                        | 2 (100%)            | 2                 |
| <b>Combined therapy</b>                       | <b>0</b>                  | <b>0</b>                 | <b>4 (12.1%)</b>    | <b>4 (12.1%)</b>  |
| MCD                                           | 0                         | 0                        | 2 (100%)            | 2                 |
| FSGS                                          | 0                         | 0                        | 2 (100%)            | 2                 |
| <b>Mendoza protocol with cyclophosphamide</b> | <b>1 (3%)</b>             | <b>0</b>                 | <b>0</b>            | <b>1 (3%)</b>     |
| FSGS                                          | 1 (100%)                  | 0                        | 0                   | 1                 |
| <b>Steroid only</b>                           | <b>0</b>                  | <b>0</b>                 | <b>1 (3%)</b>       | <b>1 (3%)</b>     |
| FSGS                                          | 0                         | 0                        | 1 (100%)            | 1                 |
| <b>Total</b>                                  | <b>13 (39.4%)</b>         | <b>3 (9.1%)</b>          | <b>17 (51.5%)</b>   | <b>33 (100%)</b>  |

**MCD**, minimal change disease; **FSGS**, focal segmental glomerulosclerosis; **MesPGN**, mesangio-proliferative glomerulonephritis

**Table (2):** Outcome of idiopathic steroid-resistant nephrotic syndrome

| <b>Outcome</b>                | <b>Number and percentage of patients</b> |
|-------------------------------|------------------------------------------|
| <b>Persistent proteinuria</b> | <b>20 (60%)</b>                          |
| MCD                           | 5 (25%)                                  |
| FSGS                          | 13 (65%)                                 |
| MesPGN                        | 1 (5%)                                   |
| No biopsy                     | 1 (5%)                                   |
| <b>ESRD</b>                   | <b>4 (12%)</b>                           |
| FSGS                          | 4 (100%)                                 |
| <b>Deaths</b>                 | <b>5 (15%)</b>                           |
| MCD                           | 2 (40%)                                  |
| FSGS                          | 3 (60%)                                  |

**MCD**, minimal change disease; **FSGS**, focal segmental glomerulosclerosis; **MesPGN**, mesangio-proliferative glomerulonephritis

**Table (3):** Histopathological spectrum of idiopathic steroid resistant nephrotic syndrome in the various studies

| Studies                                                            | Histopathological patterns |        |      |      |    |        |
|--------------------------------------------------------------------|----------------------------|--------|------|------|----|--------|
|                                                                    | FSGS                       | MesPGN | MCD  | MPGN | MN | Others |
| <b>Our study</b><br>(Upper Egypt)                                  | 58%                        | 23%    | 19%  |      |    |        |
| <b>Bakr et al, 2014</b> <sup>(14)</sup><br>(Lower Egypt)           | 19%                        | 26%    | 49 % |      |    | 6%     |
| <b>Seif et al, 2013</b> <sup>(15)</sup><br>(Lower Egypt)           | 30%                        | 2%     | 24%  | 8%   | 9% | 27%    |
| <b>Alharthi et al, 2016</b> <sup>(16)</sup><br>(Saudia Arabia)     | 62%                        | 5%     | 14%  | 14%  | 5% |        |
| <b>Shah SS et al, 2015</b> <sup>(17)</sup><br>(Pakistan)           | 10%                        | 82%    | 5%   |      |    | 3%     |
| <b>Pradhan SK et al, 2013</b> <sup>(18)</sup><br>(India)           | 30%                        | 0%     | 45%  | 2.5% | 5% | 17.5%  |
| <b>Inaba A et al, 2016</b> <sup>(19)</sup><br>(Japan)              | 32%                        | 11%    | 57%  |      |    |        |
| <b>Banaszak B and Banaszak P, 2012</b> <sup>(20)</sup><br>(Boland) | 22 %                       | 56%    | 11%  | 11%  |    |        |
| <b>Zagury A et al, 2013</b> <sup>(21)</sup><br>(Brazil)            | 54%                        | 7%     | 39%  |      |    |        |

**MCD**, minimal change disease; **FSGS**, focal segmental glomerulosclerosis; **MesPGN**, mesangio-proliferative glomerulonephritis; **MPGN**, membranoproliferative glomerulo-nephritis; **MN**, membranous nephropathy