Kouamé, D.B., Szwarc, C., Lardy, H., Lacombe, A., & Robert, M. (2003). Endoscopic treatment of vesicoureteric reflux (VUR) in children: Results of 9 years of use of Macroplastique (polydimethylsiloxane). ***Prog Urol, 13*****(6), 1368-1371.**

OBJECTIVE: Since 1993, the authors have used a Macroplastique (polydimethylsiloxane) implant for the endoscopic treatment of vesicoureteric reflux (VUR) in children instead of Teflon (polytetrafluoroethylene). They report their results after 9 years of use of Macroplastique and analyse their failures.

MATERIAL AND METHODS: 477 children with 669 refluxing ureters, classified as grade I reflux in 96 cases (14%), grade II reflux in 435 cases (65%), grade III reflux in 125 cases (19%), and grade IV reflux in 13 cases (2%), were treated at Tours University Hospital by the same surgeon, by injection of 0.1 to 0.5 ml (mean: 0.3 ml) of Macroplastique. 189 cases of unilateral reflux (66%) required a bilateral procedure on the basis of the endoscopic findings. The efficacy of treatment was evaluated on the absence of clinical and bacteriological signs of urinary tract infection and the absence of reflux on cystography during the study period.

RESULTS: 354 of the 477 children (74%) and 514 of the 669 refluxing ureters (77%), including 167 cases of bilateral VUR (65%) and 180 cases of unilateral VUR (35%) were cured. A significant difference was observed between the cure rate for bilateral reflux and unilateral reflux ($p<0.05$). The failure rate in cases of grade I and II reflux was significantly higher than in grade III and IV ($p<0.05$). The development of de novo contralateral reflux was not statistically related to unilateral or bilateral injection for the treatment of unilateral reflux.

CONCLUSION: The authors believe that the failure rate for grade I and II reflux could be explained by the concomitant presence of detrusor-sphincter dyssynergia that was not systematically investigated preoperatively and by the fact that endoscopic correction of anatomical lesions gives better results in the case of probably more malformative grade III and IV reflux.

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