Clinical eficacy of HA 280 immunoadsorption column in treating guillain barre syndrome

D. Co¹; D. Tuan¹; P. Thach¹; N. Tan¹; N. Hieu¹; T. Anh¹; B. Giang¹; N. Anh¹; H. Trieu¹; N. Trang¹; V. Toan¹; B. Cuong¹; D. Son¹ ¹Center for Critical Care Medicine, Bach Mai Hospital, Hanoi, Vietnam

Introduction

In recent years, immunoadsorption has been increasingly recognized as an alternative to therapeutic plasma exchange (PEX) and used for the treatment of neurological disorders such as Guillain–Barré syndrome, chronic inflammatory demyelinating polyneuropathy, myasthenia gravis, neuromyelitis optica spectrum disorders, multiple sclerosis, and autoimmune encephalitis. Immunoadsorption can solve some drawbacks of PEX such as anaphylaxis from fresh frozen plasma (FFP), transmission of blood borne organisms and the time-consuming preparation of FFP

Objectives

To evaluate the short-term clinical efficacy and safety of treatment of HA280 immunoadsorption (IA) column in Guillain Barré syndrome.

Methods

A prospective, intervention study in Guillain Barré patients supported immunoadsorption with HA 280 column in the Center for Critical Care Medicine, Bach Mai hospital from August 2022 to March 2023. Data including age, gender, mechanical ventilation, the change of muscle strength according to Medical Research Council (MRC) score after IA cycles Disability of patients according to Hughes score after IA cycles, catheter site infection, anaphylaxis, clinical bleeding, coagulation disoders: PLT < 150T/l, PT < 70% or APTTb/c >1,2, fibrinogen <2 g/l were collected. T- Tests were used for statistical analysis.

Results

23 patients were studied with an average age of 55.4 ± 13.90 years (min 30, max 76). In the cohort, males accounted for 60.9%.

IA was performed 101 times in 23 patients. 17 out of 23 patients did not require invasive mechanical ventilation, the six remaining patients were supported with invasive mechanical ventilation. The median frequency of IA in the two groups was 4 and 5 respectively. In the non-invasive mechanical ventilation group, the median MRC scale for muscle strength in the upper limb muscle groups before and after IA procedures were 2 and 5 respectively. In the mechanical ventilation group, the upper limb muscle strength also recovered, but slower (2 and 3 respectively). The results of lower limb muscle groups showed a similar pattern.

After the IA procedures, treatment significantly improved GBS Hughes disability scores compared with scores prior to treatment. The number of patients having Hughes score 5 before IA procedures was 6 and after IA were 5. The number of patients having Hughes score 4 before IA procedures were 17 and after IA were 2.

Adverse events only occurred in 6 of 101 procedures (5.9%), four times with catheter site bleeding, once for femoral vein thrombosis and once for column clotting. Thrombocytopenia was not noted.

Conclusions

Our study suggested that HA 280 column helped improve muscle strength according to MRC score and Disability with Hughes score in Guillain Barré syndome and may be a potential alternative treatment for PEX in this disease, however we need more research in the future.



븜 Before IA 븜 After IA

MRC score before and after IA

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Commercial interest

Ethics requirements

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Hughes score before and after IA

References

- 1. Lan Xu, Xianming Wu & Yan Zou (2015): Clinical efficacy comparison of HA280 and DNA280 immunoadsorption column in treating systemic lupus erythematosus, Modern Rheumatology, DOI: 10.3109/14397595.2015.1056955
- 2. Shuangxi Liu, Jun Zhou, Qin Liu (2020), HA280 immunoadsorption, an alternative treatment for neuromyelitis T optica spectrum disorders?, Multiple Sclerosis and Related Disorders 37 (2020) 101480
- 3. Lan Xu, Xianming Wu & Yan Zou (2015): Clinical efficacy comparison of HA280 and DNA280 immunoadsorption column in treating systemic lupus erythematosus, Modern Rheumatology, DOI: 10.3109/14397595.2015.1056955
- 4.Oji S., Nomura K., Immunoadsorption in neurological disorders, Transfusion and Apheresis Science (2017), http://dx.doi.org/10.1016/j.transci.2017.08.013

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