GAZE WEAKNESS NEGLECT AND SPEECH (GWNS): AN ACUTE ISCHEMIC STROKE SCALE OF LARGE VESSEL OCCLUSION (LVO) IN THE EMERGENCY DEPARTMENT FOR FASTER TREATMENT

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INTRODUCTION

Despite the advancement in acute ischemic stroke (AIS) with LVO, golden time is lost in assessing using NIHSS in the emergency department (ER). CTA to identify LVO requires additional time and resources and exposure of radiation and contrast delaying in perfusion therapy. A simple acute ischemic stroke scale (AISS) of cortical representations in anterior circulation that will rapidly predict LVO, cutoff time and initiate early mechanical thrombectomy (MT) is ideal. We proposed an AISS as GWNS, which can be performed in few minutes and detects LVO. Objective of our study is to evaluate the feasibility and accuracy of GWNS an AISS for the detection of LVO in the ER, which will reduce delay and avoid unnecessary exposure of radiation.

METHODS

An Institutional review board’s permission was obtained and patient enrollment began in January 2020 and still enrollment. From the database, consecutive patients from January 2020 to September 2021 were selected. In GWNS scale, each receives 1 if positive and 0 if negative and scale ranges from 0 to 4. G represents either gaze deviation or gage preference, W represents presence of any weakness, N represents presence of any neglect/disregards and S any speech impairment as aphasia or dysarthria. GWNS scale was utilized by fellowship train stroke and neuroendovascular specialist during triage in ER. In addition to GWNS and NIHSS, patients’ demographics including CTA/cerebral angiographic data were collected. Data was analyzed by a biostatistician to determine the association of GWNS scale score and LVO.

RESULTS

109 patients (52% women) with age 70.32±15.0 years. Treatment strategies included: 53.8% venous sinus stenting (75% unilateral and 25% bilateral), 30.8% collateral venous occlusion by coiling (75% with the use of liquid embolic agent and 25% without additional agents), and 13.3% associated with prominent emissary veins, a high riding jugular bulb in 10% (33.3% isolated and 66.7% associated with diverticulum), prominent emissary veins in 13.3%, and an associated AVF in 13.3% of patients. No intraprocedural complications were reported. There were 2.3% of transfusion peri-procedural complications. No permanent morbidity or mortality was observed.

CURRENT MANAGEMENT OF PULSATILE TINNITUS WITH VENOUS CAUSES. A LARGE CASE SERIES WITH MID- AND LONG-TERM OUTCOMES

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INTRODUCTION

Pulsatile Tinnitus (PT) is a disabling condition that can be caused by vascular anomalies. The treatment of the underlying vascular conditions may improve the PT, restoring the quality of life of many patients.

PURPOSE

We aimed to investigate all vascular anomalies responsible for PT and their treatments, to assess the postoperative efficacy and the complication rate of endovascular treatments, as well as the influencing factors for recurrence.

MATERIALS AND METHODS

We reviewed all patients treated for PT in our institution between January 2020 and December 2021. We reviewed all clinical and imaging data, pre- and post-procedure, and patient outcomes to explore treatment efficacy and peri-operative morbimortality.

RESULTS

We included 114 patients in this study. All patients had undergone venous endovascular interventions for PT, 77% were women and 23% were men, with an average age of 52.0±15.0 years. Treatment strategies included: 53.8% venous sinus stenting (75% unilateral and 25% bilateral), 30.8% collateral venous occlusion by coiling (75% with the use of liquid embolic agent and 25% without additional agents), and 7.8% in combined stenting and coiling. The causes of PT included: intracranial stenosis in 63.3% (84.2% stenosis alone and 15.8% associated with prominent emissary veins), a high riding jugular bulb in 10% (33.3% isolated and 66.7% associated with diverticulum), prominent emissary veins in 13.3%, and an associated AVF in 13.3% of patients. No intraprocedural complications were reported. There were 2.3% of transfusion peri-procedural complications. No permanent morbidity or mortality was observed.