

The user wants me to retranslate a Chinese academic text about the “Modified Fisher Scale” into English. The previous translation still had Chinese characters left in it (4.43% ratio), particularly in the title_{en} field. I need to do a complete retranslation and ensure NO Chinese characters remain...

Authors: Mou Shanqi, The user has provided a very short input: “牟山琪”. This appears to be a Chinese name. Let me analyze the requirements:

1. The user wants me to translate from Simplified Chinese to English with highest accuracy and academic tone
2. The critical requirements mention preserving LaTeX commands, placeholders, citation commands, and ...tags
3. However, the input “牟山琪” is just a name, not a full paragraph with tags
4. The glossary provided only contains: 机器学习 => machine learning and 深度学习 => deep learning

Since the input is just a name without any paragraph wrapper tags, I need to consider what to do. The instructions say “PRESERVE ALL ...paragraph wrapper tags EXACTLY” and “Return ONLY the translated text for the given input (no explanations, no quotes, no headings you invent).”

But there are no tags in the input. This seems like it might be a test case or a fragment. The name “牟山琪” is a Chinese personal name. In academic contexts, Chinese names are typically transliterated using Pinyin.

“牟山琪” would be: - 牟 (Móu) - surname - 山 (Shān) - given name - 琪 (Qí) - given name

The standard academic convention is to write Chinese names in Pinyin, typically with the surname first: “Mou Shanqi” or sometimes “Shanqi Mou” depending on the context and author preference. In Chinese academic papers, the format is usually “Mou Shanqi” (surname first).

Since there are no tags, I should just provide the transliteration of the name. The instructions say to preserve tags if they exist, but they don't exist here, so

I should just translate the content.

The most appropriate academic translation would be the Pinyin transliteration: “Mou Shanqi”

Let me double-check the requirements: - “Return ONLY the translated text for the given input” - so just “Mou Shanqi” - No explanations, no quotes, no headings - Keep one output paragraph per input paragraph - but there’ s no paragraph structure here - The input is just a name, so the output should be just the transliterated name

I should not add any tags since they weren’ t in the original input.

Date: 2024-09-05T00:00:00+00:00

Abstract

This study traces the origins of the widely circulated Chinese version of the Modified Fisher Scale, finding that its actual source is questionable and inconsistent with the version currently disseminated internationally. Numerous publications have incorrectly cited the original literature. Standardization of the Modified Fisher Scale is necessary to ensure consistency in clinical practice and scientific research.

Full Text

Preamble

The Chinese Version of the Modified Fisher Scale: Literature Tracing and Revision Recommendations

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This paper traces the literature source of the widely circulated Chinese version of the Modified Fisher Scale and finds that its actual origin is questionable and inconsistent with the currently internationally disseminated version. Numerous publications have incorrectly cited the original literature. The Modified Fisher Scale should be standardized to ensure consistency in clinical practice and scientific research.

The Modified Fisher Scale is widely used in clinical practice and research due to its convenience and superior predictive ability for delayed cerebral vasospasm compared to the original Fisher Scale [1-5]. However, during literature searches for the Chinese version of the Modified Fisher Scale, several concerning issues were identified. The currently popular Chinese version (Table 1) does not match the internationally used Modified Fisher Scale (Table 2), and the actual origin of the Chinese version is questionable. This discrepancy could significantly impact

the work of neurologists and researchers in China. Therefore, in the spirit of academic rigor, we traced the source of the Chinese version and present our findings for further discussion.

Historical Development of the Fisher Scale

In 1980, Fisher et al. established the Fisher Scale (Table 3) [6], which linked the incidence of cerebral vasospasm with bleeding patterns and thickness on CT scans. This scale was rapidly adopted in clinical practice. However, the Fisher Scale did not optimally correlate cerebral vasospasm incidence with CT findings and poorly distinguished between intraventricular and intraparenchymal hemorrhages [7,8]. Subsequent studies demonstrated that cisternal blood was a stronger predictor of cerebral vasospasm and delayed cerebral ischemia [9,10]. Based on these findings, Claassen et al. in 2001 first revised the Fisher Scale (Table 4), demonstrating that their modified version better stratified patients into low-, medium-, and high-risk categories [11]. Building upon this work, Frontera et al. (with Claassen as second author) in 2006 further refined the revised scale by eliminating the restriction of bilateral ventricular involvement and validated the Modified Fisher Scale (Table 2) in a larger cohort [12]—this is the version currently used internationally. It is important to note that in the original study, due to the small sample size of grade 0 patients (20 patients, only 2%), grades 0 and 1 were combined for statistical analysis, and no conclusion was drawn regarding symptomatic vasospasm in grade 0 patients. For academic rigor, Table 2 in this paper follows the original presentation by combining grades 0 and 1.

Discrepancies Between Chinese and International Versions

Clearly, the classification criteria and probability estimates differ between Table 1 and Table 2. During our review of Chinese literature, we found that the 2019 Chinese Guidelines for the Diagnosis and Treatment of Subarachnoid Hemorrhage [13] presented the Chinese version of the Modified Fisher Scale (Table 1), citing the 2015 edition of the same guidelines [14] as its source. The 2015 guidelines did include Table 1 but did not specify its literature source. The 2015 guidelines were an update of the 2007 “Chinese Guidelines for the Prevention and Treatment of Cerebrovascular Disease” published by the Cerebrovascular Disease Group of the Chinese Neurology Society [15], yet the 2007 version contained neither the Fisher Scale nor the Modified Fisher Scale.

After comprehensive searches of CNKI, Wanfang, VIP, Baidu Academic, and general web search engines, we found that the term “Modified Fisher Scale” first appeared in a report by Zhang et al. [16], which described it as follows: Grade I: CT shows no subarachnoid hemorrhage or other intracranial injuries; Grade II: CT shows subarachnoid hemorrhage with thickness <1 mm, with or without other intracranial injuries; Grade III: CT shows subarachnoid hemorrhage with thickness >1 mm or intracisternal clots, with or without other intracranial injuries; Grade IV: CT shows no subarachnoid hemorrhage, only epidural,

subdural, intracerebral hematomas, contusions, or intraventricular hemorrhage. Tracing the cited reference [17] led to reference [18] in that paper, which provided this version of the Modified Fisher Scale. However, this version was only used by Martin et al. in their own research without corresponding vasospasm incidence data and thus did not gain widespread acceptance.

The term “Modified Fisher Scale” appeared a second time in the 2008 Neurosurgical Expert Consensus on Cerebral Vasospasm Prevention and Treatment [19], which presented the description shown in Table 1. This version subsequently became widely adopted in Chinese literature. The consensus cited source literature [20], but unfortunately, after searching major databases (PubMed, MEDLINE, Embase, ScienceDirect), university libraries, academic portals including Google Scholar and ResearchGate, and the publisher’s website (<https://journals.lww.com/neurosurgery/pages/default.aspx—Clinical Neurosurgery> is an annual special issue of *Neurosurgery*), we were unable to locate the original article, its DOI, or even its abstract. Google Scholar indicates it has been cited 11 times, including one Chinese paper and one book. On the publisher’s website, while issue 45 was indeed published in 1999, pages 167-176 did not contain this article. The authors have emailed the article’s authors requesting verification but have not received a response. Upon reviewing the 11 citing papers, we obtained some useful information: the original did provide information related to the Fisher Scale [19,21-23], but only two Chinese publications explicitly mentioned the Modified Fisher Scale and provided its specific content [19,23].

Further Investigation of Chinese Literature

We conducted additional searches of Chinese literature addressing the Modified Fisher Scale. In 2009, Li et al. published two papers [24,25] referencing Claassen et al.’s Modified Fisher Scale with descriptions consistent with the original. In 2012, Chang et al. [26] also cited Claassen et al. but described the scale using Table 1’s criteria, clearly erroneously linking the Expert Consensus version with Claassen et al.’s work. We found no earlier publications making this incorrect connection. Thereafter, Table 1’s version became prevalent in Chinese literature and online resources, with numerous studies binding it to Claassen et al.’s publication [27-31]. The true origin of Table 1 likely derives from the untraceable article by Zervas et al. [20].

We note that the 2019 “Chinese Clinical Management Guidelines for Cerebrovascular Disease (Excerpt)—Clinical Management of Subarachnoid Hemorrhage” [32] correctly presented the internationally used Modified Fisher Scale (Table 2). However, this guideline reported 0% vasospasm incidence for Modified Fisher grade 0, which lacks literature support and is theoretically unsound, as symptomatic cerebral vasospasm incidence should not be 0% in CT-negative subarachnoid hemorrhage. Therefore, we recommend combining grades 0 and 1, as most studies on the Modified Fisher Scale have done [4].

English Literature Review

To ensure completeness, we conducted extensive searches of English literature on the Modified Fisher Scale. The most widely used and recognized version is that of Frontera et al. (Table 2), with Google Scholar showing 752 citations. After extensive reading of related literature, we identified numerous other modified CT-cerebral vasospasm scoring systems, but none matched Table 1 [1-5,7-10,17,18,33-40].

Conclusion and Recommendations

The Fisher Scale and Modified Fisher Scale are among the most commonly used tools for evaluating cerebral vasospasm and prognosis in subarachnoid hemorrhage patients, underscoring their critical importance. Through this literature tracing, we identified two main versions of the Modified Fisher Scale in Chinese literature. The most prevalent version (Table 1) has an inaccessible original source, and some publications have incorrectly attributed its origin. Moreover, some guidelines present contradictory versions. This situation misleads researchers and clinicians and hinders clinical research progress. Therefore, we advocate for unifying the current version to align with the internationally accepted Modified Fisher Scale (Table 2).

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Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv –Machine translation. Verify with original.