Is there a reasonable body of evidence to discard mandatory brain imaging in acute mastoiditis? A meta analysis

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Abstract

Acute mastoiditis (AM) related intra-cranial complications (ICC) are prevalent and may be diagnosed and treated promptly. Infectious ICC are diagnosed using brain imaging and will be missed without it. Nevertheless most clinicians base their decision to perform brain imaging on clinical suspicious only. The aim of the study was to see whether there's an association between rate of imaging performance and therefore the diagnosis of ICC in AM. Google scholar, PubMed, Medline, EMBASE, Web of science and Cochrane websites were searched from 1992 to 2017 (last search conducted on November 2017) using the key words: acute mastoiditis, otomastoiditis, imaging and intracranial complications in English only with no restrictions regarding age of patients. The database search yielded 1071 studies. 40 studies were found to be suitable for the meta-analysis. The rates of ICC were found to be significantly higher in centers where brain imaging was mandatory done, as compared to centers where brain imaging was performed ???as needed???, supported clinical presentation. A typical clinical combination on which centers based their indication for imaging in AM patients was hard to elucidate. Available publications (up to 2017) don't offer high grade clinical evidence based measures for outlining the AM patient who is at a high risk for developing ICC. ICC are under-diagnosed in centers where brain imaging is performed within the minority (<50%) of AM patients, supported unintentional clinical judgment only. Sometimes chronic subdural hematoma are often developed following posttraumatic subdural hygroma. the aim of this study is to analyze its incidence, the duration required for his or her conversion, and characteristic CT and MR findings of subdural hygroma and chronic subdural hamatoma.

We studied 8 patients with persistent posttraumatic subdural hygroma which consequently developed chronic subdural hamatoma. The patients were examined with CT initially and followed-up with CT in 3 and MR in 5. We analyzed the placement of the lesion, the change of the density or signal intensity, the change of the scale, and therefore the degree of enhancement and mass effect. The duration required for the formation of hematoma was 48-166 days (mean, 76 days). The characteristic CT findings of subdural hygroma were a crescentric lesion with CSF density along the inner table with-out contrast enhancement. The mass effect was minimal. The CT findings of chronic subdural hematoma were higher density than that of hygroma all told cases, increase in thickness and size in 3 cases, and contrast enhancement along the inner membrane of the hematoma in 5 cases. The signal intensities of the subdural hygroma were similar to those of CSF on both T1 and T2 weighted images, whereas, those of chronic subdural hamatoma were higher. The increased signal intensity on T1 weighted MR images and increased attenuation or contrast enhancement of the lesion on CT may suggest the conversion of subdural hygroma into chronic subdural hematoma. Sometimes chronic subdural hematoma may be developed following posttraumatic subdural hygroma. the aim of this study is to research its incidence, the duration required for his or her conversion, and characteristic CT and MR findings of subdural hygroma and chronic subdural hamatoma. We studied 8 patients with persistent posttraumatic subdural hygroma which consequently developed chronic subdural hamatoma. The patients were examined with CT initially and followed-up with CT in 3 and MR in 5. We analyzed the situation of the lesion, the change of the density or signal intensity, the change of the dimensions, and also the degree of enhancement and mass effect. The duration required for the formation of hematoma was 48-166 days (mean, 76 days). The characteristic CT findings of subdural hygroma were a crescentric lesion with CSF density along the inner table with-out contrast enhancement. The mass effect was minimal. The CT findings of chronic subdural hematoma were higher density than that of hygroma all told cases, increase in thickness and size in 3 cases, and contrast enhancement along the inner membrane of the hematoma in 5 cases. The signal intensities of the subdural hygroma were just like those of CSF on both T1 and T2 weighted images, whereas, those of chronic subdural hamatoma were higher. The increased signal intensity on T1 weighted MR images and increased attenuation or contrast enhancement of the lesion on CT may suggest the conversion of subdural hygroma into chronic subdural hematoma We are proposing to revise the Medicare hospital inpatient prospective payment systems (IPPS) for operating and capital-related costs of acute care hospitals to implement changes arising from our continuing experience with these systems for FY 2021 and to implement certain recent legislation.

We are also proposing to form changes referring to Medicare graduate medical education (GME) for teaching hospitals. additionally, we are providing the market basket update which will apply to the rate-of-increase limits surely hospitals excluded from the IPPS that are paid on an affordable cost basis, subject to those limits for FY 2021.

Extended Abstract

We are proposing to update the payment policies and also the annual payment rates for the Medicare prospective payment system (PPS) for inpatient hospital services provided by long-term care hospitals (LTCHs) for FY 2021. during this FY 2021 IPPS/LTCH PPS proposed rule, we are proposing changes to the new technology add-on payment pathway sure antimicrobial products and other changes to new technology add-on payment policies, and to gather market-based rate information on the Medicare cost report for cost reporting periods ending on or after January 1, 2021, and requesting discuss a possible market based MS-DRG relative weight methodology beginning in FY 2024 that we may adopt during this rulemaking. We are proposing to ascertain new requirements or revise existing requirements for quality reporting by acute care hospitals and PPS-exempt cancer hospitals