

ANEURISMA CEREBRALE: DIAGNOSI e TRATTAMENTO

Il monitoraggio dell'emorragia subaracnoidea

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**Incarico professionale di particolare qualificazione:
Trattamento Chirurgico della Patologia Neurovascolare**

Il monitoraggio dell'emorragia subaracnoidea

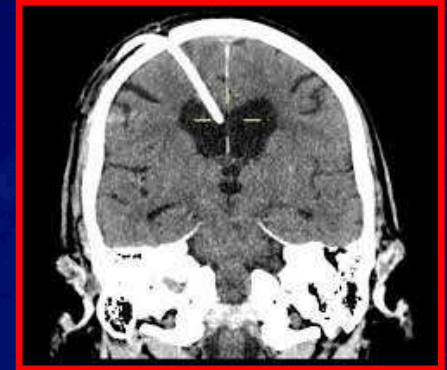
COMPLICANZE DELL'ESA

- IDROCEFALO
- VASOSPASMO
- DANNO ISCHEMICO SECONDARIO

Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

DRENAGGIO VENTRICOLARE ESTERNO



- Riduce la quota di sangue subaracnoideo e intraventricolare
- Riduce la PIC in fase acuta
- Facilita l'intervento chirurgico
- Monitoraggio della PIC in pazienti critici che non possono essere continuamente spostati per esecuzione di TC
- Possibilità di drenaggio in continuo o intermittente

Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

DRENAGGIO VENTRICOLARE ESTERNO

- Non tutti i pazienti ne hanno necessità
- Va mantenuto il minor tempo possibile: Rischio di shunt-dipendenza
- Rischio infettivo (ventricoliti-encefaliti)
 - Catetere in sali d'argento
 - Catetere con soluzione antibiotica



Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

Neurocrit Care. 2018 Apr;28(2):157-161. doi: 10.1007/s12028-017-0443-2.

External Ventricular Drains After Subarachnoid Hemorrhage: Is Less More?

Chung DY¹, Mayer SA², Rordorf GA³.

Author information

Abstract

External ventricular drains (EVD) are essential in the early management of hydrocephalus and elevated intracranial pressure after subarachnoid hemorrhage (SAH). Once in place, management of the EVD is thought to influence long-term patient outcomes, rates of ventriculitis, incidence of delayed cerebral ischemia, need for a ventriculoperitoneal shunt, and intensive care unit (ICU) and hospital length of stay. The available evidence supports adopting early clamp trials and intermittent cerebrospinal fluid (CSF) drainage. However, a recent survey demonstrated that most neurological ICUs employ the opposite approach of continuously open EVDs and gradual weaning. In this article, we review the literature and arguments for and against the different EVD approaches. We conclude that an early clamp trial and intermittent CSF drainage can be safe and result in fewer EVD complications and shorter length of stay. Given the ~~discrepancy between the available evidence and current practice, more studies on the optimal management of EVDs are warranted with the greatest need for multicenter prospective studies.~~

KEYWORDS: Hydrocephalus; Length of stay; Postoperative complications; Subarachnoid hemorrhage; Vasospasm

PMID: 28929378 PMCID: PMC5858985 [Available on 2019-04-01] DOI: 10.1007/s12028-017-0443-2

METHODS: The authors performed a randomized clinical trial. Within 72 hours of admission for SAH, patients with an external ventricular drain (EVD) were randomized to undergo continuous CSF drainage with intermittent intracranial pressure (ICP) monitoring (open-EVD group) or continuous ICP monitoring with intermittent CSF drainage (monitor-ICP group).

RESULTS: After 60 patients completed the study, an interim analysis was performed. The complication rate of 52.9% for the open-EVD group was significantly higher than the 23.1% complication rate for the monitor-ICP group (OR 3.75, 95% CI 1.21-11.66, $p = 0.022$). These results were reported to the Data Safety and Monitoring Board and enrollment was terminated. The odds ratio of vasospasm for the open EVD versus monitor-ICP group was not significant (OR 0.44, 95% CI 0.13-1.45, $p = 0.177$).

CONCLUSIONS: Continuous CSF drainage with intermittent ICP monitoring is associated with a higher rate of complications than continuous ICP monitoring with intermittent CSF drainage, but there is no difference between the two types of monitoring in vasospasm. Clinical trial registration no.: [NCT01169454](https://clinicaltrials.gov/ct2/show/study/NCT01169454) (clinicaltrials.gov).

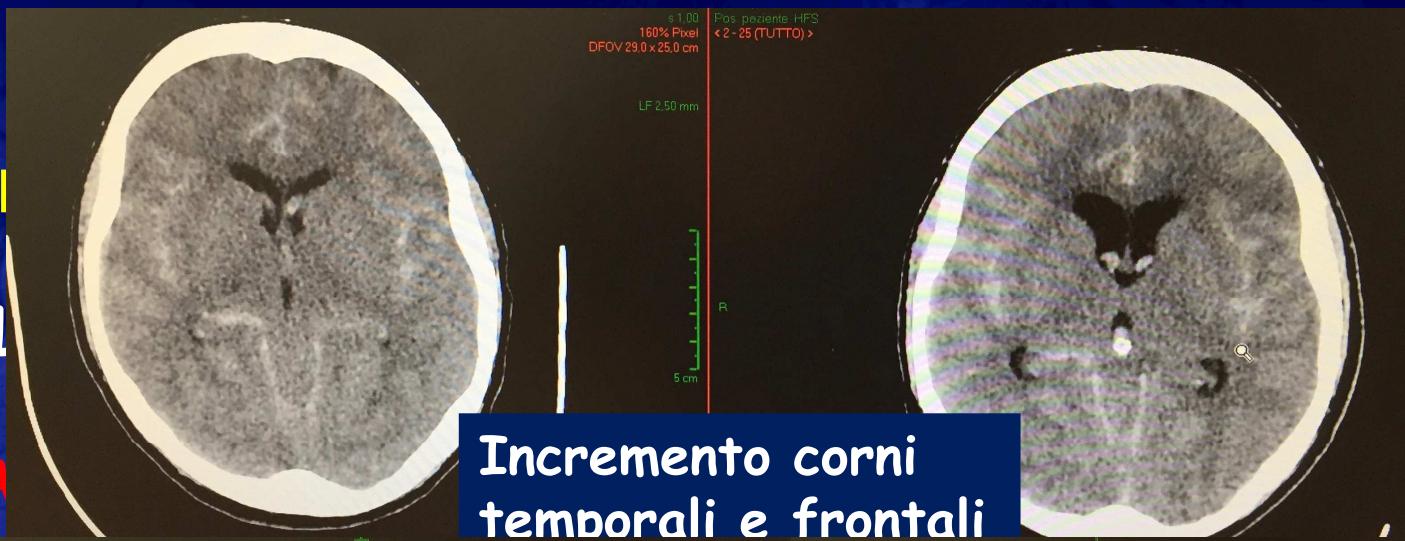


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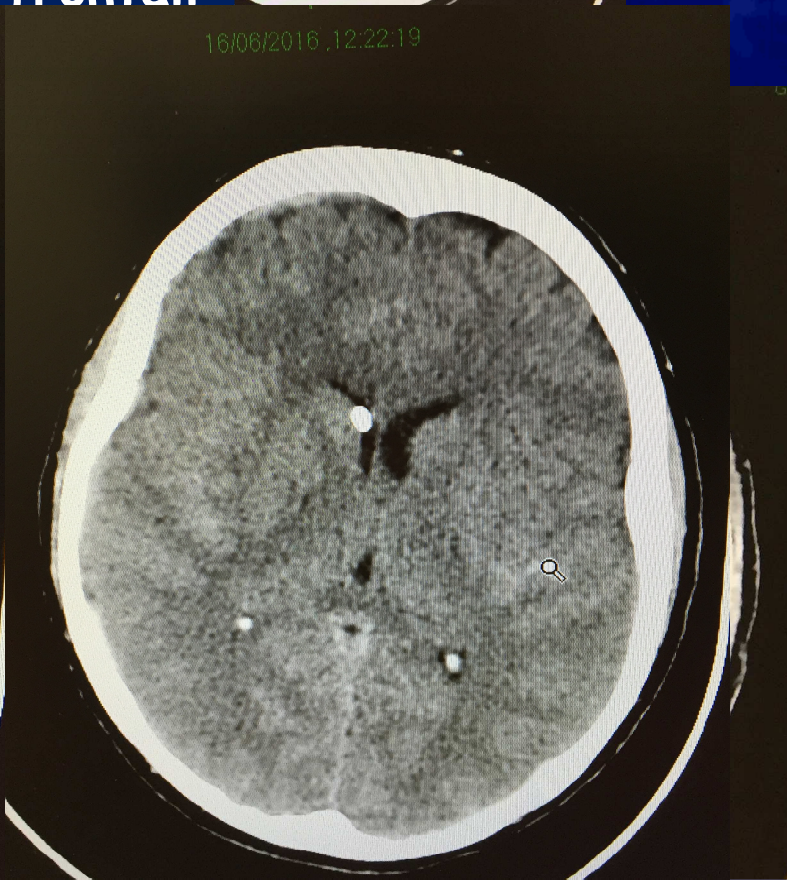
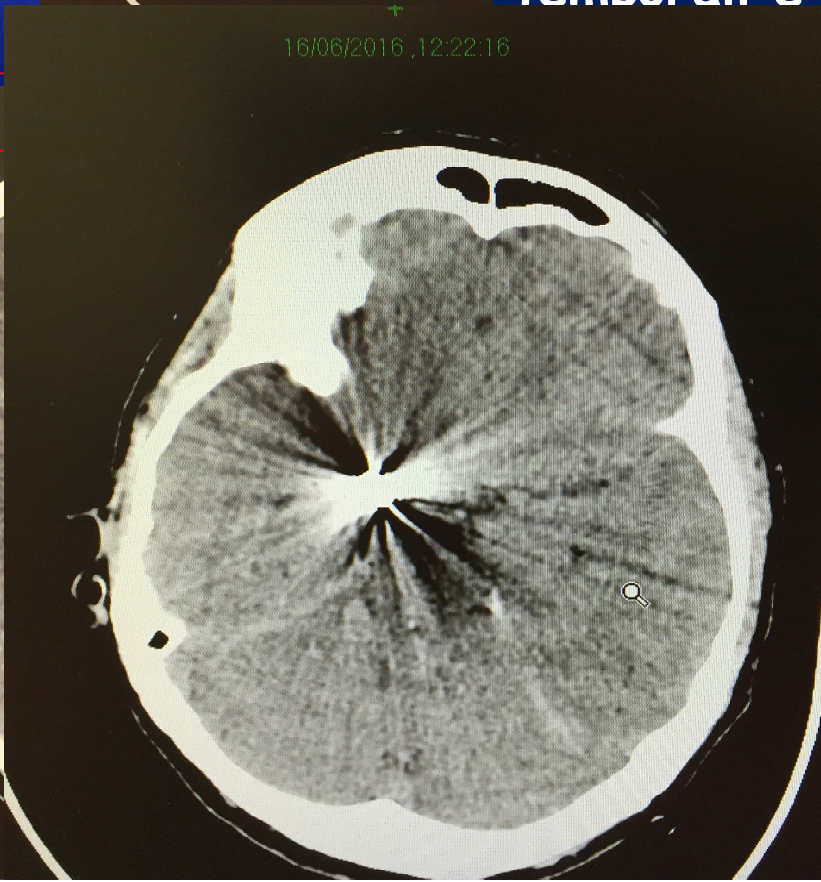
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Incremento corni
temporali e frontali

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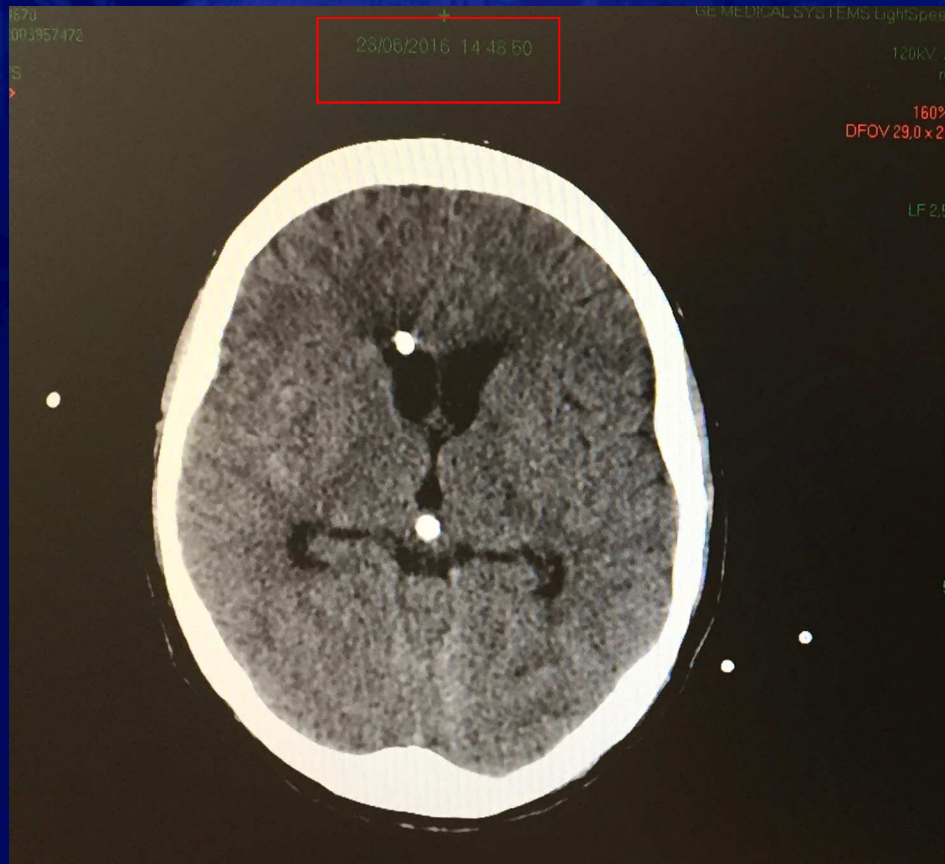
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Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

DRENAGGIO VENTRICOLARE ESTERNO

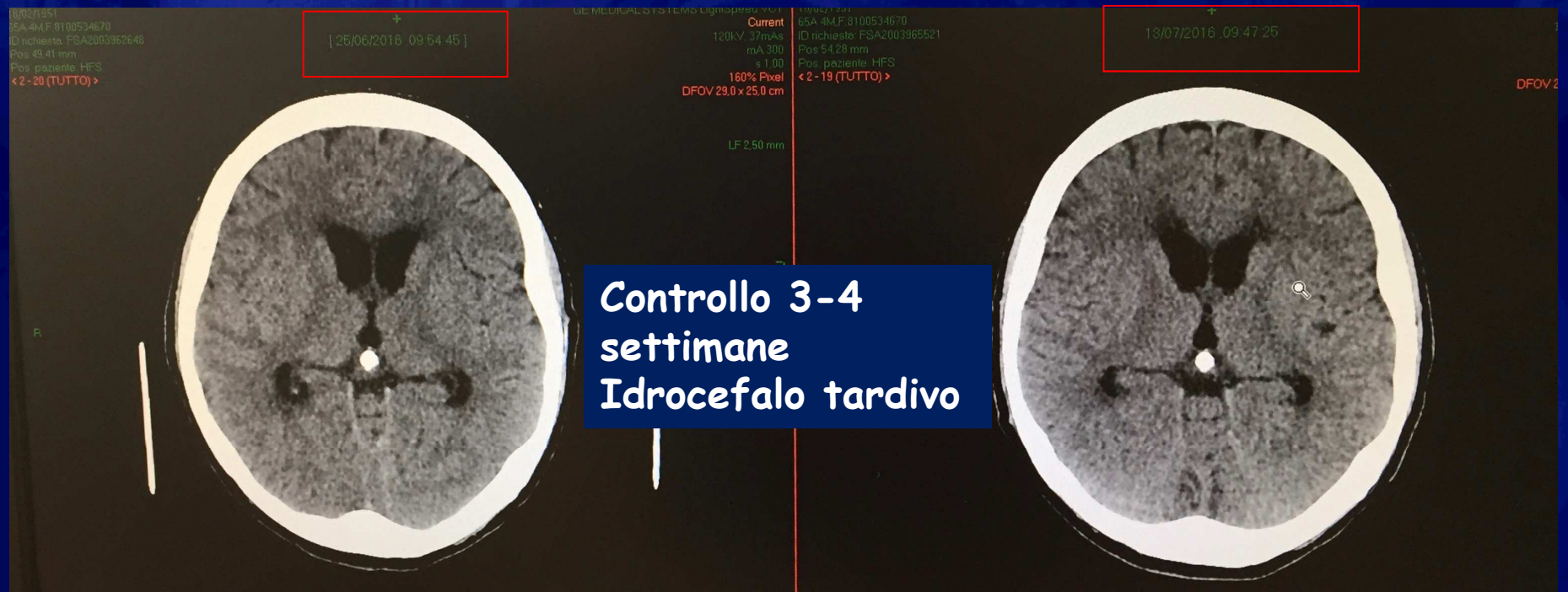


Completo riassorbimento dell'esa
Buone condizioni cliniche
Bassi valori PIC
DVE chiusa
Osservazione clinica
TC 36/48 h
Rimozione della DVE

Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

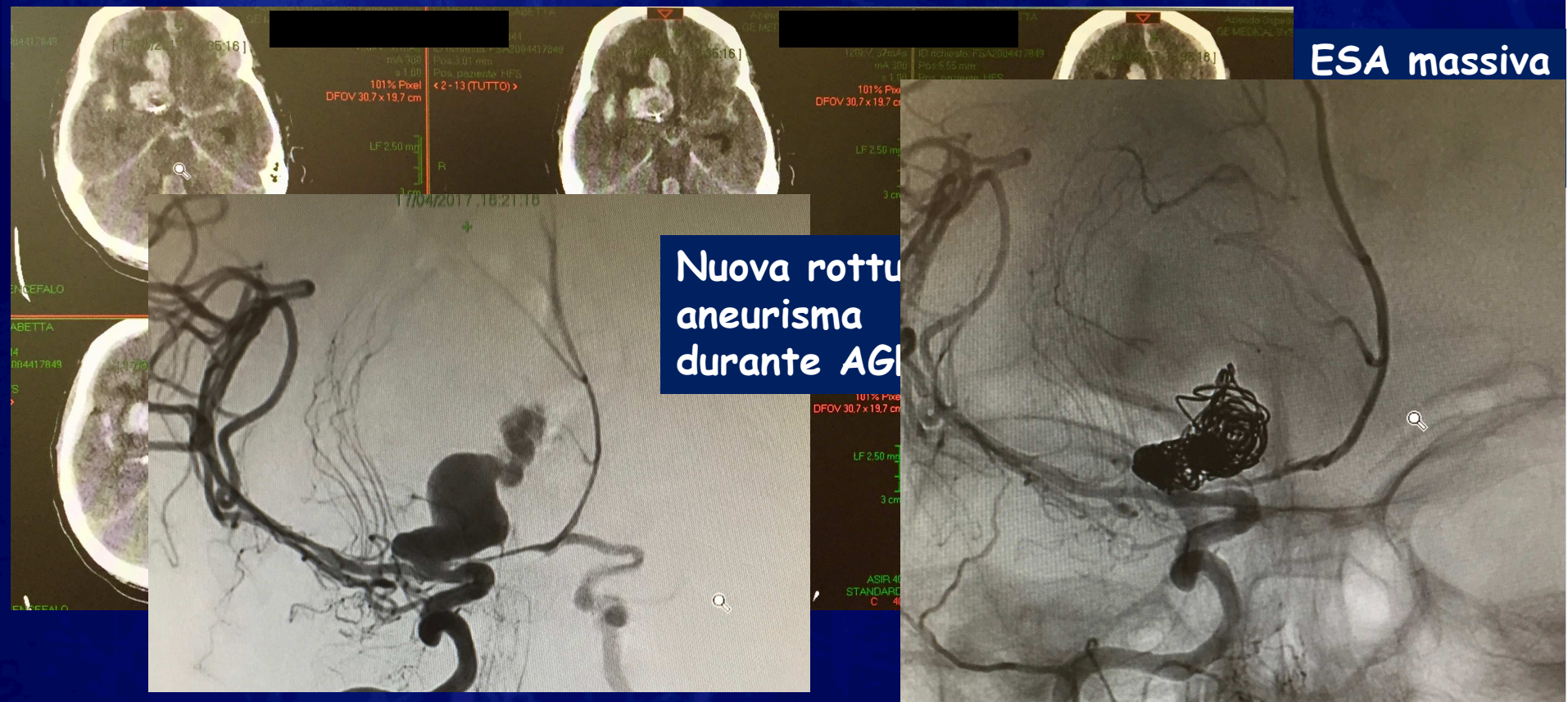
DRENAGGIO VENTRICOLARE ESTERNO



Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

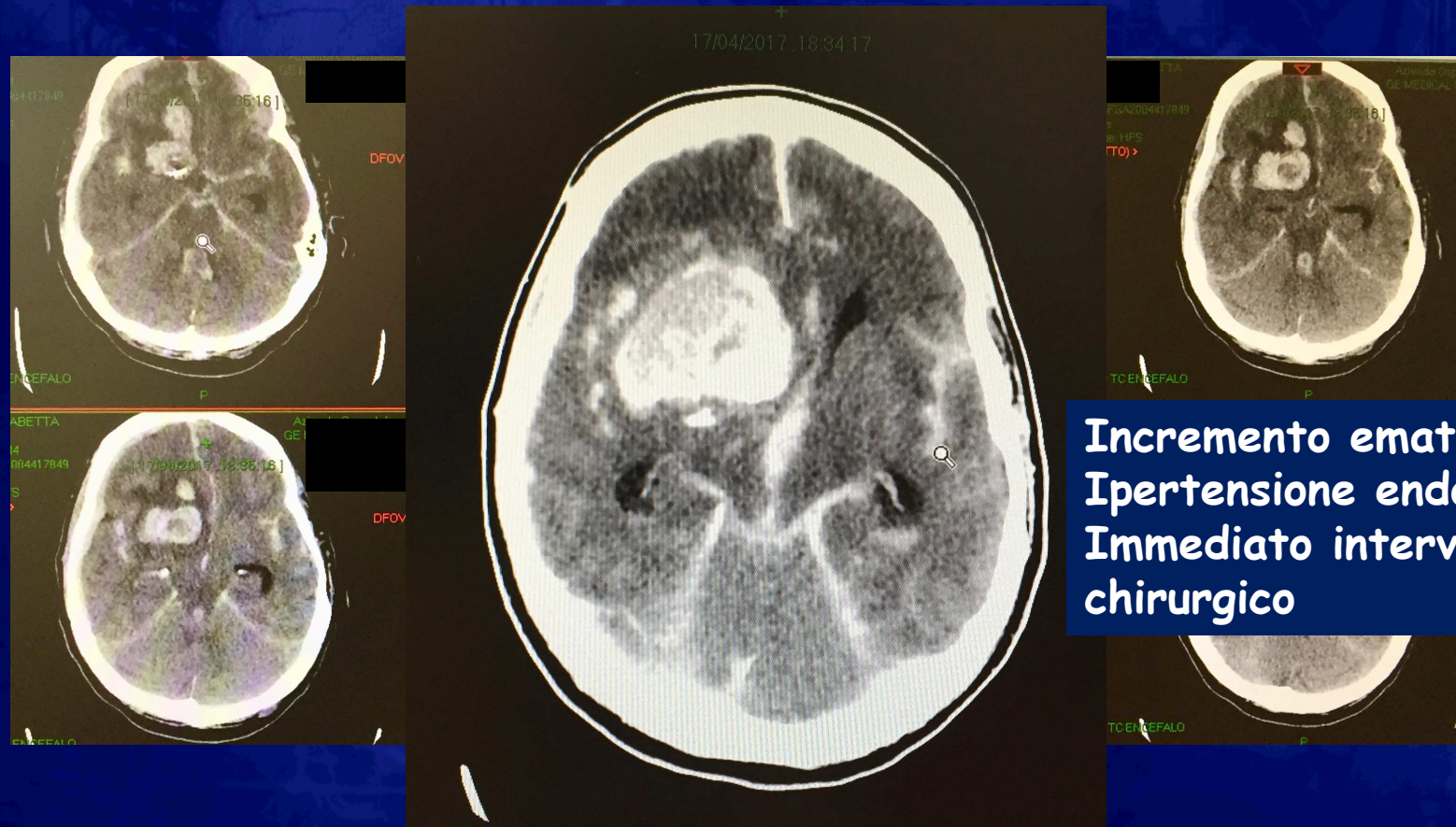
DRENAGGIO VENTRICOLARE ESTERNO



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COMPLICANZE DELL'ESA : IDROCEFALO

DRENAGGIO VENTRICOLARE ESTERNO



ESA massiva
GCS 9
HH 3

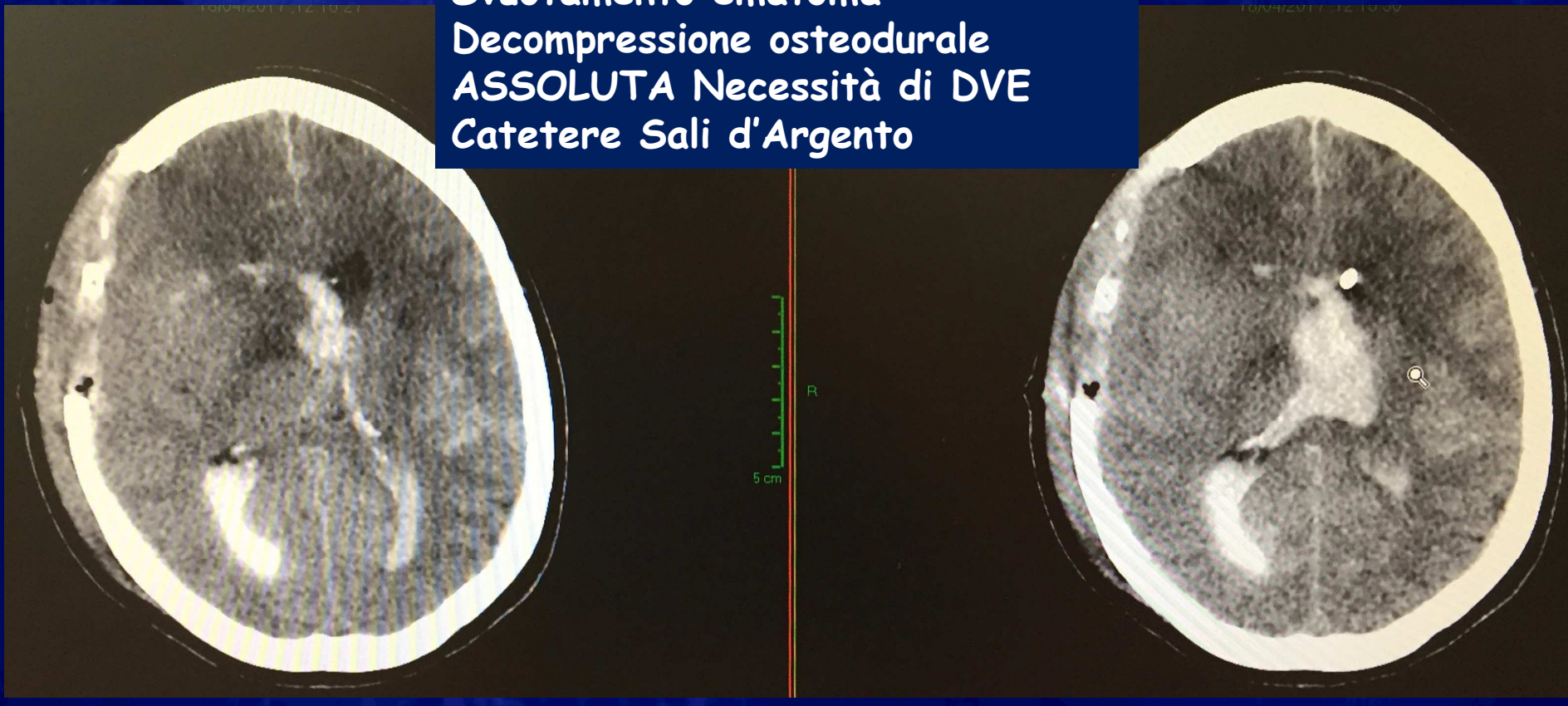
Incremento ematoma
Ipertensione endocranica
Immediato intervento
chirurgico

Il monitoraggio dell'emorragia subaracnoidea

COMPLICANZE DELL'ESA : IDROCEFALO

DRENAGGIO VENTRICOLARE ESTERNO

Svuotamento ematoma
Decompressione osteodurale
ASSOLUTA Necessità di DVE
Catetere Sali d'Argento

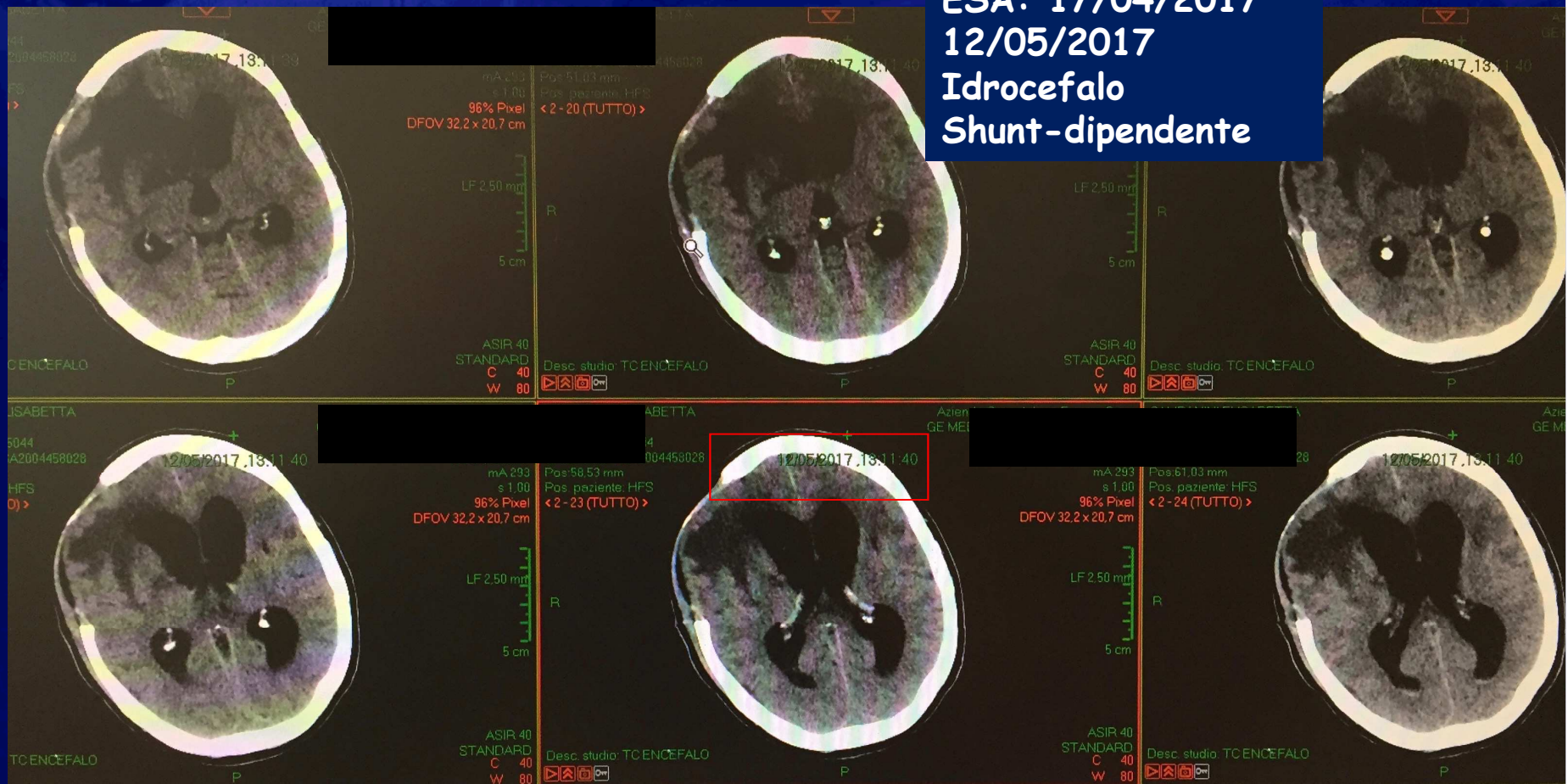


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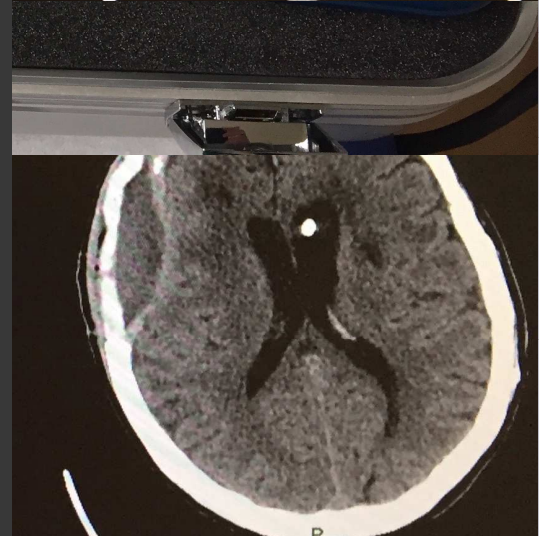
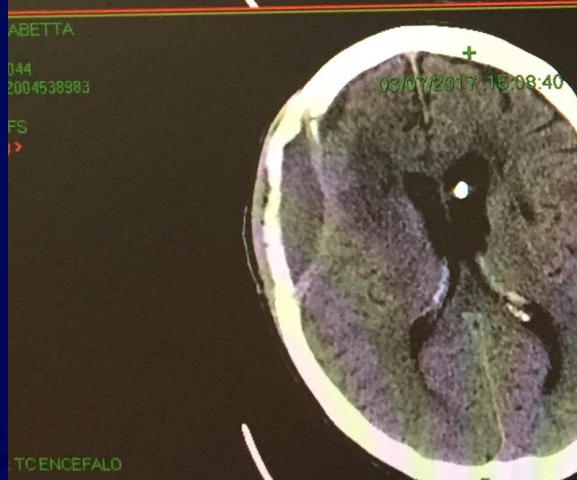
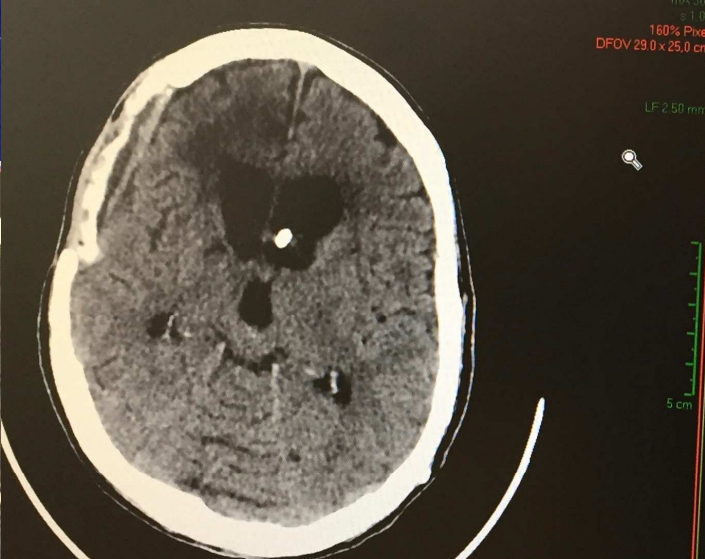
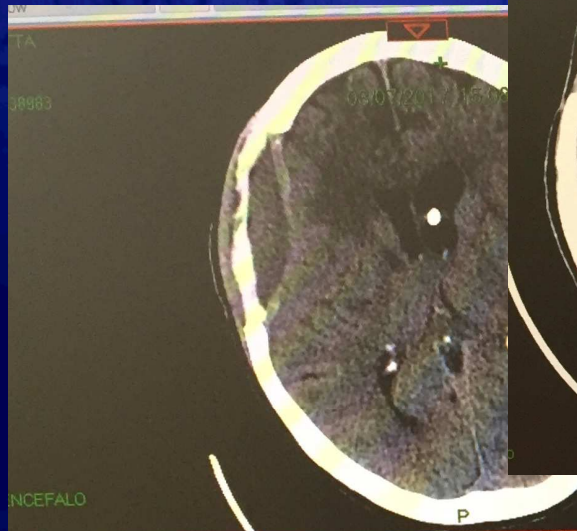
DRENAGGIO VENTRICOLARE ESTERNO

ESA: 17/04/2017
12/05/2017
Idrocefalo
Shunt-dipendente



Il monitoraggio

COMPLICANZE DERIVAZIONE



GRAZIE PER
L'ATTENZIONE

