

Prophylactic antibiotics for temporal bone fracture

Prophylactic antibiotics in the setting of cerebrospinal fluid fistula is controversial; however, Diaz et al. advocated its use due to a dedicated meta-analysis of Cerebrospinal fluid fistula specific to the [lateral skull base](#)¹⁾.

Given the low incidence of [meningitis](#) in this subgroup and the lack of evidence demonstrating any benefit to prophylactic [antibiotics](#)^{2) 3) 4) 5) 6) 7) 8) 9) 10) 11)}

Villalobos et al. performed a formal systematic review of previously published studies after a computerized search with use of the MEDLINE data base (1970-1996). Fourteen studies were identified, and 12 studies met the criteria for inclusion. Study design and quality were assessed by two independent investigators with use of a predetermined protocol. A total of 1,241 patients with basilar skull fractures were included; 719 patients received antibiotics, and 522 patients did not receive antibiotics. Overall results suggest that antibiotic prophylaxis did not prevent [meningitis](#) among patients with [basilar skull fractures](#) (odds ratio [OR] = 1.15; 95% confidence interval [CI] = 0.68-1.94; P = .678). Patients with basilar [skull fractures](#) and [Cerebrospinal fluid fistula](#) were analyzed separately (OR = 1.34; 95% CI = 0.75-2.41; P = .358), as were children (OR = 1.04; 95% CI = 0.07-14.90; P = 1.000). [Antibiotic prophylaxis](#) after basilar skull fractures does not appear to decrease the risk of [meningitis](#)¹²⁾.

¹⁾

Diaz RC, Cervenka B, Brodie HA. Treatment of Temporal Bone Fractures. J Neurol Surg B Skull Base. 2016 Oct;77(5):419-29. doi: 10.1055/s-0036-1584197. Epub 2016 Jun 2. PMID: 27648399; PMCID: PMC5023437.

²⁾

Leech PJ, Paterson A. Conservative and operative management for cerebrospinal-fluid leakage after closed head injury. Lancet. 1973 May 12;1(7811):1013-6. doi: 10.1016/s0140-6736(73)90662-4. PMID: 4122107.

³⁾

MacGee EE, Cauthen JC, Brackett CE. Meningitis following acute traumatic cerebrospinal fluid fistula. J Neurosurg. 1970 Sep;33(3):312-6. doi: 10.3171/jns.1970.33.3.0312. PMID: 5457642.

⁴⁾

Hoff JT, Brewin A, U HS. Letter: Antibiotics for basilar skull fracture. J Neurosurg. 1976 May;44(5):649. doi: 10.3171/jns.1976.44.5.0649. PMID: 1262930.

⁵⁾

Zrebeet HA, Huang PS. Prophylactic antibiotics in the treatment of fractures at the base of the skull. Del Med J. 1986 Nov;58(11):741-8. PMID: 3792591.

⁶⁾

Frazee RC, Mucha P Jr, Farnell MB, Ebersold MJ. Meningitis after basilar skull fracture. Does antibiotic prophylaxis help? Postgrad Med. 1988 Apr;83(5):267-8, 273-4. doi: 10.1080/00325481.1988.11700238. PMID: 3357863.

⁷⁾

Einhorn A, Mizrahi EM. Basilar skull fractures in children. The incidence of CNS infection and the use of antibiotics. Am J Dis Child. 1978 Nov;132(11):1121-4. doi: 10.1001/archpedi.1978.02120360077015. PMID: 717321.

⁸⁾

Helling TS, Evans LL, Fowler DL, Hays LV, Kennedy FR. Infectious complications in patients with severe head injury. *J Trauma*. 1988 Nov;28(11):1575-7. doi: 10.1097/00005373-198811000-00009. PMID: 3141628.

⁹⁾

Ignelzi RJ, VanderArk GD. Analysis of the treatment of basilar skull fractures with and without antibiotics. *J Neurosurg*. 1975 Dec;43(6):721-6. doi: 10.3171/jns.1975.43.6.0721. PMID: 1053427.

¹⁰⁾

Dagi TF, Meyer FB, Poletti CA. The incidence and prevention of meningitis after basilar skull fracture. *Am J Emerg Med*. 1983 Nov;1(3):295-8. doi: 10.1016/0735-6757(83)90109-2. PMID: 6680635.

¹¹⁾

Yellinek S, Cohen A, Merkin V, Shelef I, Benifla M. Clinical significance of skull base fracture in patients after traumatic brain injury. *J Clin Neurosci*. 2016 Mar;25:111-5. doi: 10.1016/j.jocn.2015.10.012. Epub 2015 Dec 24. PMID: 26724846.

¹²⁾

Villalobos T, Arango C, Kibilis P, Rathore M. Antibiotic prophylaxis after basilar skull fractures: a meta-analysis. *Clin Infect Dis*. 1998 Aug;27(2):364-9. doi: 10.1086/514666. PMID: 9709888.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=prophylactic_antibiotics_for_temporal_bone_fracture

Last update: **2024/06/07 02:53**

