

## Comment to the article: Methyl alcohol intoxication in İzmir

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We read with great interest the study of Uysal et al.<sup>[1]</sup> on methyl alcohol intoxication and would like to offer some comments. In methyl alcohol intoxication, the mortality rates in various studies ranged from 3 to 48%.<sup>[2]</sup> Early diagnosis and appropriate treatment may reduce mortality rates. The diagnosis is based on patient history, neuro-ophthalmological symptoms, and detection of toxic blood methanol levels.<sup>[3]</sup> Unfortunately, many hospitals in Türkiye are unable to analyze methanol. Therefore, as in the study of Uysal et al.,<sup>[1]</sup> the diagnosis of methanol intoxication can be made based on patient history, clinical findings, laboratory findings, such as metabolic acidosis, and neuroradiological findings. Another important consideration is prognostic factors. In the study of Uysal et al.,<sup>[1]</sup> mortality was significantly associated with radiological imaging, vasopressor agent need, and APACHE II and Glasgow coma scale scores. Previous reports on the predictors of prognosis in methanol intoxication demonstrated that poor prognosis was associated with coma at the time of hospital admission, serum pH <7, and an elevated anion gap.<sup>[2,4]</sup> In our study on methyl alcohol intoxication published in 2022, patients who had imminent brain death were compared with survivors.<sup>[4]</sup> The patients who had imminent brain death had lower Glasgow coma scale scores during intensive care unit admission and a higher

ratio of pathologic neuroimaging findings due to methanol intoxication.<sup>[4]</sup> In the patients with methanol intoxication, the imminent brain death rate was 38.9%, and the brain death rate was 22% in our study.<sup>[4]</sup> Uysal et al.<sup>[1]</sup> stated that their study regarding methyl alcohol intoxication was the first study reporting organ transplantation in a patient with methyl alcohol poisoning. However, our study, published in 2022, included a case in which a patient with brain death became an organ donor.<sup>[4]</sup> The liver was transplanted from the donor.<sup>[4]</sup> In addition, there were other reports regarding successful organ transplant from donors with acute methanol intoxication.<sup>[5]</sup>

In conclusion, methanol intoxication is one of the major causes of intoxication, with high risk of morbidity and mortality. Reduction in mortality risk can be achieved if treatment is started immediately with early diagnosis.<sup>[3]</sup> Therapeutic procedures include gastric lavage, fomepizole, ethanol, correction of acidosis with sodium bicarbonate, folic acid, and hemodialysis.<sup>[3]</sup> Patients with methanol intoxication who do not respond to treatment should be followed closely for brain death in the intensive care units.<sup>[4]</sup> After brain death diagnosis, organ donation can be performed in appropriate donors. No complications or damage due to methanol and its products on transplanted organs have been noted.<sup>[4]</sup>

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