

## LETTER TO EDITOR

# Comment on "Medical Management and Outcome of Paraquat Poisoning in Ahvaz, Iran: A Hospital-Based Study"

ARMAN OTROSHI, NASTARAN EIZADI-MOOD\*, ALI MOHAMMAD SABZGHABAEI

Clinical Toxicology Research Center, Department of Clinical Toxicology, Isfahan University of Medical Sciences, Isfahan, Iran

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Dear editor,

We read the recent article of Rahmani et al entitled "Medical Management and Outcome of Paraquat Poisoning in Ahvaz, Iran: A Hospital-Based Study" in your journal (1). In their study they performed upper gastrointestinal (GI) endoscopy as a routine for all paraquat poisoned patients, because they considered paraquat a caustic agent and that it may cause severe mucosal injuries in esophagus. This approach seems rather excessive, as Yen et al established that paraquat is a mild caustic agent and produces only grades 1, 2a, and 2b esophageal injury that can be managed with supportive measures (2). In addition, Chen et al ascertained the same implication showing in their study that paraquat is only a weak caustic agent (3). In our experience (4), low rate of GI injury occurs in paraquat poisoning, and moreover, GI tract complications alone do not have any impact on patients' survival (4).

Taking these facts together, because paraquat poisoning is common in some regions and upper GI endoscopy is an anecdotal routine in some hospitals for this type of poisoning, in our opinion the following comments are better to be considered in day to day practice and for future studies:

1- The relationship between clinical signs and symptoms of mucosal injury (vomiting, odynophagia, dysphagia, retrosternal pain, etc.) with the degree of injury in GI endoscopy in paraquat poisoning has not been determined yet.

2- The association of paraquat serum level with the level of mucosal injury (determined by endoscopy) has not been established in paraquat poisoned patients.

3- As paraquat poisoning may cause severe liver dysfunction and coagulopathy, for performing endoscopy,

the optimal time should be considered. In this case, invasive measures may just worsen the patients' condition by exposing them at the risk of uncontrollable bleeding.

4- Comparing the specificity and sensitivity of chest esophageal CT scan (as a possible substitute for GI endoscopy) and GI endoscopy (as a gold standard method) for evaluation of esophageal injury seems to be beneficial.

5- Finally, in order to determine the severity of paraquat poisoning and better define prognosis, severity index of paraquat poisoning (SIPP) is a widely used tool (5). Performing GI endoscopy for patients with SIPP scores less than 10, which are indicative of better prognosis, can be taken into account for follow up purpose (5).

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\*Correspondence to: Nastaran Eizadi-Mood; MD, PhD. Professor of Clinical Toxicology, Department of Clinical Toxicology, Isfahan University of Medical Sciences, Isfahan, Iran.

Tel: +98 313 222 2127, E-mail: [izadi@med.mui.ac.ir](mailto:izadi@med.mui.ac.ir)

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