Comparison between Oral vs. Intravenous Administration of Proton Pump Inhibitors

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**Background:** In patients with peptic ulcer bleeding, a proton pump inhibitor (PPI) is administered intravenously (IV) following endoscopic treatment. However, if oral administration (PO) of the PPI obtains the same antisecretory effect as IV administration of the PPI, PO PPI treatment will be more advantageous in shortening the length of a patient’s hospital stay compared to IV PPI administration. **Methods:** The subjects of the current study included 51 patients with peptic ulcer bleeding who did not undergo endoscopic therapy and in whom a visible vessel or blood clot was present. These patients were randomized into two groups, one group receiving IV administration of the PPI (IV PPI group, n=26) and a group in which the PPI was administered orally (PO PPI group, n=25). The 24-hour intragastric pH was measured and the hemostasis rate was compared between the two groups. **Results:** The hemostasis rate was 92.3% (24/26) in the IV PPI group and 92.0% (23/25) in the PO PPI group (p=0.936). The median 24-hour gastric pH value was 5.93±1.92 in the IV PPI group and 5.73±1.74 in the PO PPI group (p=0.748). Daytime median intragastric pH was 5.94±2.00 in the IV PPI group and 5.58±1.69 in the PO PPI group (p=0.861). Night-time median pH was 5.91±1.95 in the IV PPI group and 5.68±1.86 in the PO PPI group (p=0.624). The mean percent of cases in which gastric pH exceeded 6 was 62.3% in the IV PPI group and 58.5% in the PO PPI group (p=0.672). The difference in the cumulative frequency of cases did not reach a statistical significance. **Conclusion:** In patients with bleeding peptic ulcer, in which a visible vessel or blood clot was present, there were no significant differences in the hemostasis rate and intragastric pH between intravenous infusion of a PPI and the oral administration of a PPI. **Keywords:** Peptic Ulcer Hemorrhage; Proton Pump Inhibitor; Hemostasis