Lansoprazole promotes peritoneal fibrosis by bleomycin

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Bleomycin is used as an anticancer agent in the treatment of squamous cell carcinoma. Bleomycin is also used to prepare a pulmonary fibrosis model in experimental medicine due because, it has pulmonary fibrosis as a side effect. We investigated whether the gastric ulcer drug lansoprazole could also be used to suppress pulmonary fibrosis because it suppressed liver fibrosis through suppression of Tgf-β activation in a dietary nonalcoholic steatohepatitis model. Rats were subcutaneously treated with lansoprazole (LAP, 30 mg / kg / day), bleomycin (BLM, 1 mg / kg / day) or bleomycin and lansoprazole (LAP + BLM) for 28 days. The hypertrophic visceral peritoneum was strongly induced in livers of LAP+BLM group, which could be macroscopically confirmed. Histologically analysis indicated that a strong thickening of the visceral peritoneum was observed in LAP+BLM group but neither LAP or BLM group. Furthermore, in the LAP + BLM group, immunohistochemistry indicated M2 macrophages in the visceral peritoneum thickened, and the expression of Tgfβ and Col1a1 gene were increased using real-time PCR. The bleomycin interview form reported that the hypertrophic visceral peritoneum was observed in the rats treated with bleomycin continuously. Thus, lansoprazole may have promoted the hypertrophic visceral peritoneum in the liver of rats treated with bleomycin. Both bleomycin and lansoprazole are clinically used drugs, and we plan to conduct a retrospective study to investigate whether this phenomenon is confirmed.