

# Comparing the treatment of gastric cancer between Korea and Saudi Arabia

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Gastric cancer is not so common in Saudi Arabia and according to the latest Saudi cancer registry it is the 9th common cancer among Saudis with an average of 300 new cases diagnosed each year, this number represent about 2.7% of all newly diagnosed cancer cases in year 2013 (1).

Due to lacking of national screening program for most of cancers in Saudi Arabia including gastric cancer, a high percent of patients are found to have distant metastasis at the time of diagnosis, it is about 34% in case of gastric cancer and most of the remaining are locally advanced one.

In one retrospective study done in a university hospital in Riyadh (capital city of Saudi Arabia) over a period of 7 years a total of 10,725 upper gastrointestinal endoscopies were performed, 67 patients (0.62%) had gastric adenocarcinoma. Approximately 40% of gastric cancers were located at the cardiofundic region. The most frequent macroscopic type was the ulcerative type (67%). Polypoid (18%) and ulcerative-polypoid type (15%) were less frequent. According to Lauren's classification, 38% had diffuse, 51% interstitial, and 11% had intermediate type (2).

In the literature there are very few data and articles concerning gastric cancer management in Saudi Arabia which could be attributed to the relatively small volume of cases of this disease in addition to distribution of these patients in many centers.

During the last century with the oil discovery in Saudi Arabia which led to the revolutionary development in the country, the life style of the population had been westernized leading to increasing the prevalence of morbid obesity and chronic diseases like diabetes mellitus and hypertension. In addition, most of the oncology physicians practicing gastric cancer treatment in my area were trained

in the west and mainly in North America, these factors made gastric cancer treatment in Saudi Arabia almost similar to the west.

In this regard it is well known and documented the marked differences in postoperative morbidity, mortality rates and long-term survival after surgery between eastern and western countries (3), many variables may contribute to this differences, one of them is the higher incidence of early-stage gastric cancers (EGC) detected through routine check-ups or screening programs in Korea and Japan and the higher incidence of far advanced gastric cancer and esophagogastric junction (EGJ) tumors in western countries which is the case in Saudi Arabia also where there is no screening program as we mentioned earlier.

Another variable in this issue is the patient factors like BMI and co-morbidities, for example in Saudi Arabia the obesity prevalence is reaching 23% of the population which is considered one of the highest in the world (4) and this is clearly affect the operative feasibility and the short-term outcome.

One important variable also is the difference in the level of surgeon experience and perioperative care due to clinical volume which clearly evident in South Korea where many centers operate more than 1,000 case of gastric cancer per year, and this high volume centers and high volume surgeons ultimately lead to a better outcome (5), in contrast, in Saudi Arabia currently there are very few surgeons subspecialized in gastric cancer surgery with relatively small volume in comparison to their Korean colleagues.

And as there is no major differences in gastric resection and reconstruction between the eastern and western surgeons, lymph nodes dissection is still in debate. Surgeons

in Korea and Japan—for example—are in favor of extended D2 lymph nodes dissection and their opinion is that D2 dissection can be done safely, provide a better local control and more accurate for pathological staging (6), while North American surgeons and most of Saudi surgeons—as they were trained—are favoring D1 dissection.

Though recently eastern practice in form of endoscopic treatment of early gastric cancer (endoscopic mucosal resection was mentioned but not endoscopic submucosal dissection) and extensive lymph nodes dissection in the form of D2 dissection were implemented in the Saudi oncologic guidelines for gastric cancer management (7), but still eastern surgical operative skills and experience not yet well implemented in the Saudi surgical practice.

Now, after the agreement between the Saudi and the Korean governments for training the Saudi fellows, eastern practice is expected to increase and we hope that it will have a positive effect on the gastric cancer treatment and the researches volume concerning this disease.

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### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest

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