Editorial

Liver transplantation for unresectable colorectal liver metastases (CRLM) using extended criteria donor (ECD) grafts: proceed with caution

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Liver transplantation (LT) for colorectal liver metastases (CRLM) seems to be nowadays an established treatment, not only of unresectable CRLM (uCRLM) (1) but also for borderline resectable ones (2,3). For these patients, the benefit of LT vs standard modern advanced palliative therapies ranges between 40–80% (1). Notwithstanding the high rates of recurrence, LT can definitely be considered as a curative option, in particular considering the excellent long-term results recently published by the Oslo group (4).

Most of data available up to now are mainly results of standard whole LT from deceased donors (DD). Unfortunately, in times of DD paucity, the huge discrepancy between offer and demand already for standard indications still persists. The extension of the spectrum of indications of LT to CRLM may represent an additional medical and ethical problem in the context of graft sharing. The actual excellent long-term results of LT for CRLM (4), which are similar or even better than standard indications (5), would justify the extension of indication to ultra-selected patients (i.e., less than 5% of all potential candidates) (6). Therefore, there is an urgent need of alternatives to standard DD-LT. At this regard, the use of extended criteria donor (ECD) livers and the 2-staged auxiliary LT according to the RAPID concept have been proposed (7-10).

The use of ECD livers for uCRLM (particularly in times of machine perfusion) has been justified by the fact that in these patients the risk of complications by using marginal grafts is definitely lower than dying without LT. In other words, the poor prognosis with conventional treatment and the possible advantages of improved survival are considered to outweigh the risks taken by using marginal grafts (11). Actually, two running trials are facing this topic, i.e., the SOULMATE study (Sweden, NCT04161092) and the COLT Study (Italy, NCT03803436). In their recent study, Villard *et al.* (12) showed that the use of ECDs could increase today's donor pool by 6–18%. This donor pool would be sufficient to cover the need of LT for ultra-selected patients with uCRLM (6,12).

In this context, the recent consensus guidelines (1) proposed the use of ECD in patients affected of uCRLM. On the contrary, the Oslo group in SECA II Arm D Study showed that these patients undergoing LTs with extended patient and donor criteria have relatively short overall survival (13).

In summary, given that the number of potentially eligible cases of LT for uCRLM is not a real competition to the standard indications, especially considering the excellent long-term results, the use of ECD livers in this context may represent an opportunity but should be considered very carefully.

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