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*Letter to the editor*

## Five Years of Renal Transplantations in Montenegro: Results and Challenges

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### Abstract

First renal transplantation in Montenegro was performed on September 25<sup>th</sup>, 2012. Since then, 32 transplantations have been performed. Only one was from deceased donor, the remaining were from living donors. 40.4% of all patients with end-stage renal disease currently live with the functioning renal allograft (190 patients on dialysis, 129 transplanted patients). There are 32 patients on the waiting list. Further efforts will be focused on development of the deceased donor program and introduction of the ABO incompatible renal transplantations.

**Keywords:** renal transplantation, Montenegro, living donors

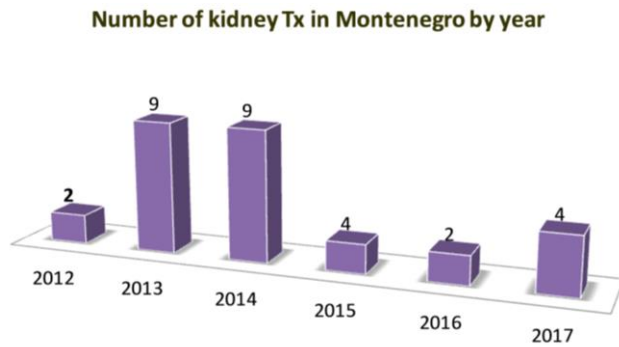
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Dear Sir,

Until the establishment of the own renal transplant program citizens of Montenegro went for transplantations in neighboring countries of the former Yugoslavia if they had living donor or to countries with illegal market of organs or went for transplantation in the states with legal possibility for foreigners to be placed on the waiting list for kidney transplantation if they could financially afford transplantation (France, Russia). From 1990 until September 2012 92 transplantations were performed-4.14 per year. Doctors from Montenegro had to learn how to face numerous complications associated with this kind of transplantations. In order to stop transplant tourism and to provide the best option

of renal replacement treatment, Montenegro decided to establish its own program despite the small overall number of dialysis patients which never exceeded 190. Montenegro became a member of the Regional Health Development Center (RHDC), a part of the South East European Health Network (SEEHN), in February 2011. RHDC is an organization supported by the Council of Europe, with aim to establish all necessary conditions for the development of transplantation in the South-eastern Europe. At that time Croatian transplant results were enormous, placing Croatia on the top of the world with a record number of donors per million population and number of transplanted kidneys per million population. Connections and support from RHDC helped to establish collaboration between Montenegro and Croatia [1]. The first renal transplantation in Podgorica, Montenegro was performed on September 25<sup>th</sup>, 2012 in collaboration between the Croatian and the Montenegrin transplant teams. Since then, 32 transplantations have been performed-6.4 per year. Out of these 32 transplantations, 31 were from the living donor and only one from the deceased donor (Figure 1).

One patient developed thrombosis of the renal artery, and after the thrombendarterectomy had functioning allograft for additional two years when was retransplanted.



**Fig. 1.** Number of kidney transplantations performed at Clinical centre Montenegro since September 2012 by year of transplantation

Other patients are doing well without significant post-transplant complications, as well as all donors.

It is important to stress that 97 potential living donors were evaluated over the observed period. All of them were either family-related or emotionally-related potential donors. From this number, only 31 (31.9 %) satisfied the criteria to become donors. Others had clinical contraindications for donation. Montenegro currently has 190 patients on dialysis in 11 centers dispersed throughout the country. The waiting list for renal transplantation was corrected; all patients were reevaluated and have been prepared for the eventual call for transplantation. Thus, 32 patients are currently on the waiting list (16.8% of dialysis population). 40.4% of all patients

with end-stage renal disease are living with the functioning renal allograft.

Establishment of the national transplant program helped to increase number of transplantations per year. However, we have not solved the problem of patients without adequate living donor while we failed to develop deceased-donor transplantation program. Further steps include development of the ABO incompatible program in order to increase number of potential living donors, and nationwide efforts to introduce organ donation from deceased donors.

In conclusion, huge efforts have been invested to promote deceased donor program in Montenegro. However, rejection rate is still extreme. It is obvious that families of potential donors still have no adequate knowledge to perceive transplantation. Thus, education of the medical personnel and of the community is mandatory if we want to improve our results.

*Conflict of interest statement.* None declared.

## Reference

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