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Session Title : How to Start and Establish New LDLT Program in Asian Countries

How to Start and Establish New LDLT Program in Asian Countries: Kazakhstan experience

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Good afternoon ladies and gentlemen, Thank you chairman for introduction. It is a great opportunity to share and exchange with experiences.

Today I would like to talk about how we started and established the LDLT program in Kazakhstan.

Kazakhstan is a ninth largest country in the world with population about 19 million people only.

As you see, very large area. As well as the large distance between cities and hospitals. Which do make some difficulties for liver transplant program

These days we have mainly 4 cities with transplant centers in different parts of Kazakhstan. And our transplant center Syzganov's Scientific Center of surgery in Almaty now is a largest in the field of liver and kidney transplantation. The first living donor liver transplantation was performed in our center December 2011. Since 2013 regional transplant program has been started.

Here are the history of development transplantation in Kazakhstan. The first organ transplantation – cadaveric kidney transplantation was performed 1979 in our center. Then the first DDLT was in 1997. The first living donor liver transplantation was performed also in our center December 2011. In 2012, in our country began performing heart and lung transplantation. Then we started pediatric liver transplant program in 2013. And dual graft LDLT was performed in 2019 with Korean colleagues from AMC.

In the period from 2012 to 2022 , overall 2248 organ transplantations were performed in Kazakhstan, which include kidney, liver, heart, lung, pancreas transplantations.

Over the past 10 years, we have done 392 cases of liver transplantation in Kazakhstan. As you see, we mainly perform living donor liver transplantation. From 2014 we started pediatric liver transplant program as well.

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So what is necessary to start and establish LDLT program? Of course the good quality of facility, the qualified multidisciplinary members, ethical issues and concepts. And one of crucial requirements is governmental support! And most important is motivation!

As you see, Liver transplantation from deceased donors are very low. Almost 10 % of all performed cases.

Over the past 10 years, we had 88 cases of cadaveric organ donation in Kazakhstan. As you see, Until 2017 cadaveric donation was increasing. However, we had several conflicts in media which dramatically affected to whole program and required to change organ transplant laws.

Currently, LDLT program is only option to further develop the liver transplantation in Kazakhstan

We started our program from international collaboration in the field of living donor liver transplantation

The first living donor liver transplantation was performed in our center December 2011. Since 2013 regional transplant program has been started. As you see different hospitals in different parts of Kazakhstan started liver transplant program with international colleagues.

As you see, Many hospitals started liver transplant program, however, not all were ready to establish that successfully! Currently only our center is most active and largest liver transplant center in Kazakhstan

As I mentioned, motivated Multidisciplinary and qualified team is very important!

In Almaty, we performed 202 LDLTs since 2011. As you see, in different period of time we worked with several experts in the field of LDLT, to increase our experience.

The first LDLT was together with Belarusian colleagues Dec 2011.

After that, we starts to work with our Japanese colleagues. Overall 10 LDLTs were performed together.

Almost at the same time second liver transplant team started to work with Indian colleagues, with whom also 10 transplants were performed.

We established liver transplant program, currently we perform around 25 -30 cases of transplantation per year

As you see here, viral hepatitis HBV with and without HDV are main indications for liver transplantation.

We mostly use right lobe of the liver for transplantation

Since PLDLT started in 2016, we performed 40 cases.

Here are the overall survival in our center, ten year survival is around 72 %.

So multidisciplinary team work and motivation is necessary to establish the program!

And continuous International collaboration is crucial !

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Over the past 10 years, liver transplantation program has been established. International collaboration is crucial in developing and increasing the level of living donor liver transplantation program