



PERSPECTIVES KIDNEY TRANSPLANTATION IN VIET NAM

From Dream to Reality

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** President of VSOT; Vietnam Military Medicine Institut; 103 Military Hospital



My disclosure

➡ I have nothing to disclose

CONTENTS

- **HISTORY**
- **DEVELOPMENT**
- **SURGICAL TECHNIQUE & SCIENTIFIC RESEARCH**



\$215.829 billion^[5] ([47th](#))

- Per capita

\$2,305^[5] ([129th](#))

Socialist Republic of Vietnam

Cộng hòa Xã hội chủ nghĩa Việt Nam



Ha Noi – Ho Chi Minh City distance : estimate 1500 km	
Total area	332,698 km ² (128,455 sq m) (65th)
Population (2016 estimate)	92,700,000 (14th)
Density	276.03/km ² (714.9/sq mi) (46th)
GDP (nominal) (2017 estimate)	Total: \$215.829 billion (47th) Per capita: \$215.829 billion (47th)

CURRENT STATUS OF ESRD PATIENTS

- There were about 11,500 patients (pts) on hemodialysis & >1300 on CAPD
- Estimatively There are 10,000 ESRD patients on Dialysis on CAPD in VN
- There are approximately 5,000 new ESRD cases annually.
- New Dialysis centers were open for the new patients (governmental or private)
- The government partially supports costs of both dialysis and transplantation.

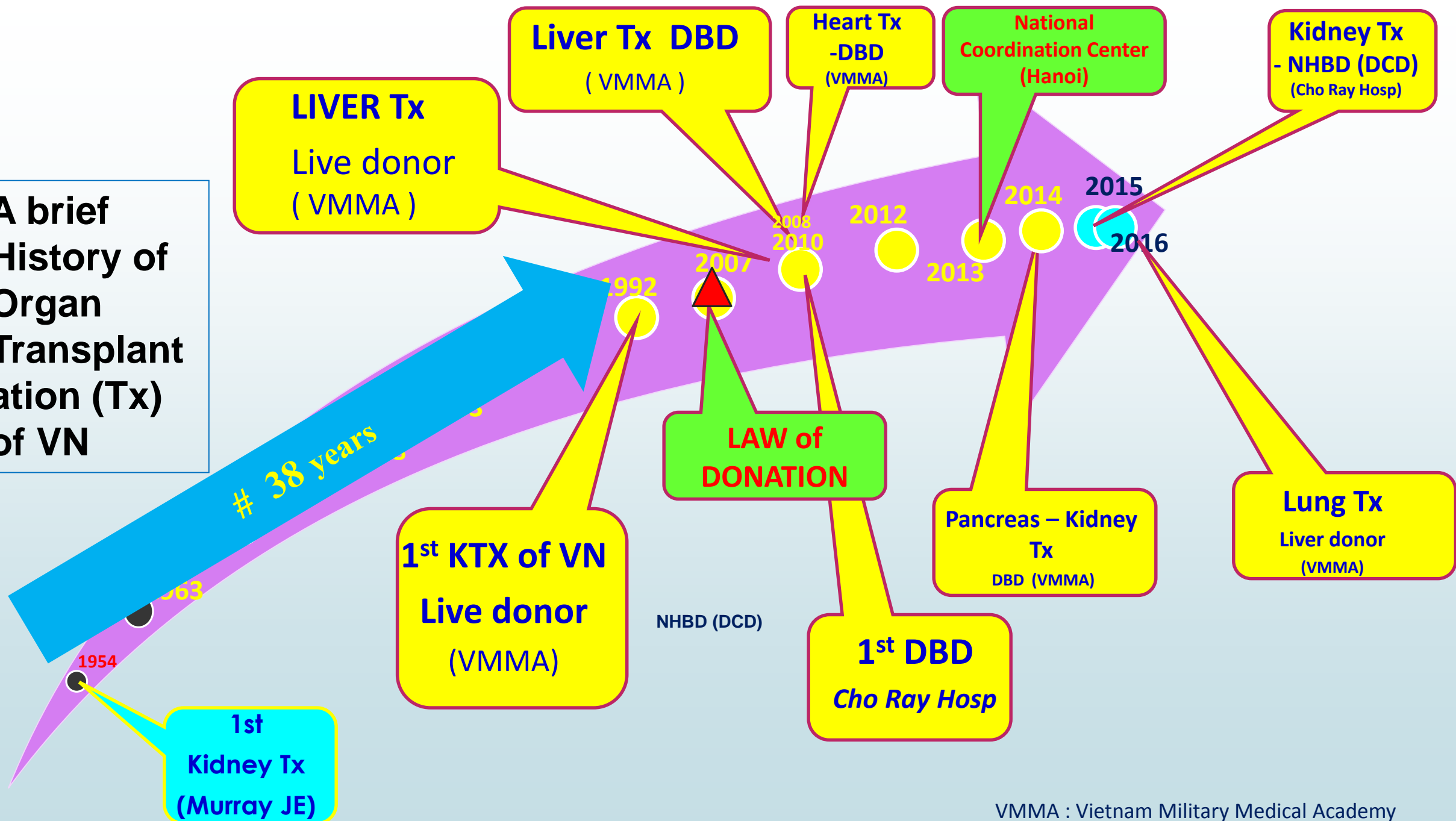
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CURRENT STATUS OF ESRD PATIENTS

- The primary cause of renal failure is glomerulonephritis, then stone disease. But the number ESRD due to diabetes increase
- By 2022, epidemiologist Sarah White estimates that there 60,000 pts will require hemodialysis in Vietnam

A brief History of Organ Transplantation (Tx) of VN



Model of Training in Chợ Rẫy Hospital

- Dec. 1992 to Dec /2016: 548 cases Kidney Tx
 - 1992-1997: 06 first cases : VN team + Intrnational expert.
 - From 1998: Only VN team
 - 2000: regulary operation every week
 - 2010: DBD kidney transplatation
 - 2004: LAP Nephrectomy, Retroperitineal LAP Nephrectomy
 - 2015 : DCD kidney transplatation

ORGAN TRANSPLANTATION CENTERS OF VIET NAM

Northern: 10 centers

(3 multi-organ center)

Center: 2 ”

(1 multi-organ center)

Southern: 5 “

(2 multi-organ center)

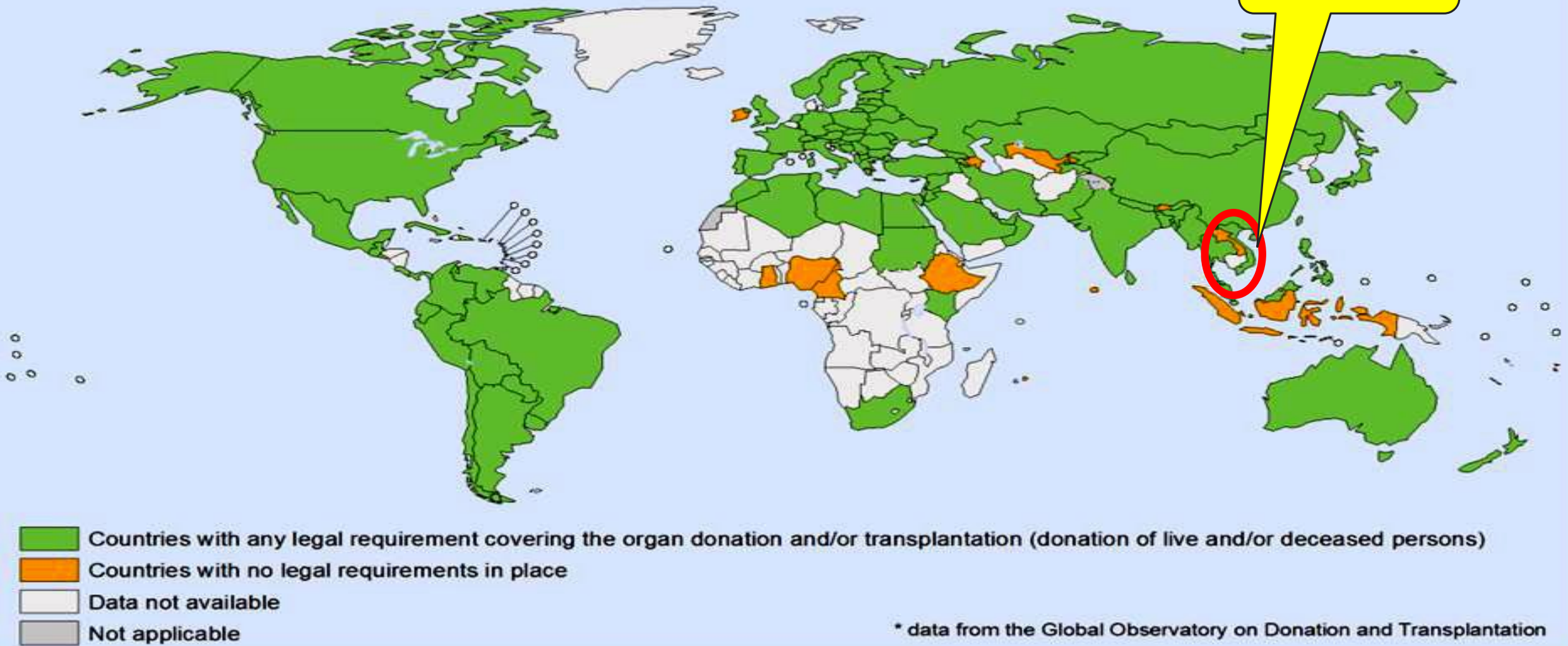
17 centers



Global distribution of countries with legal frameworks for organ donation and/or transplantation *

VN Organ Donation Law: 2006

From 2013



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: Global Observatory on Donation & Transplantation. Map Production: Public Health Information and Geographic Information Systems (GIS), World Health Organization

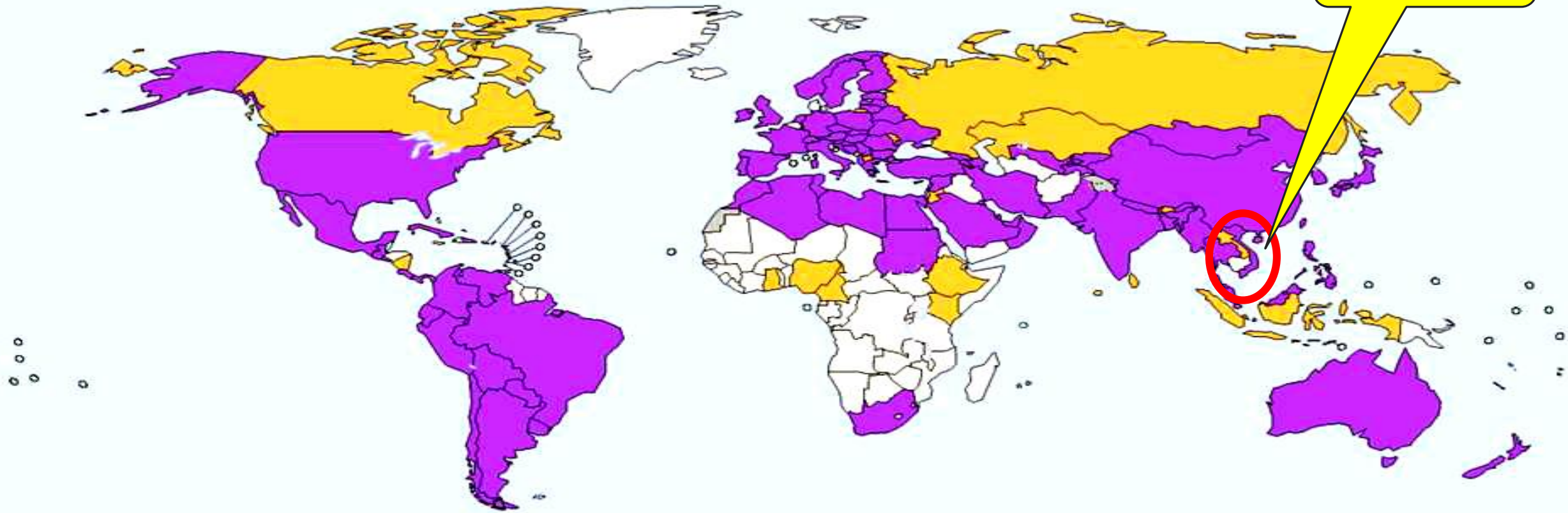






World Health Organization

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Global distribution of countries with national organizational systems for transplantation *

From 2013



-  Countries with a government authority and/or a specific organization, institution or agency, overseeing organ donation and/or transplantation at national level
 -  Countries without any national organizational structure responsible for organ donation and/or transplantation (neither a government authority nor a specific body)
 -  Data not available
 -  Not applicable
- * data from the Global Observatory on Donation and Transplantation

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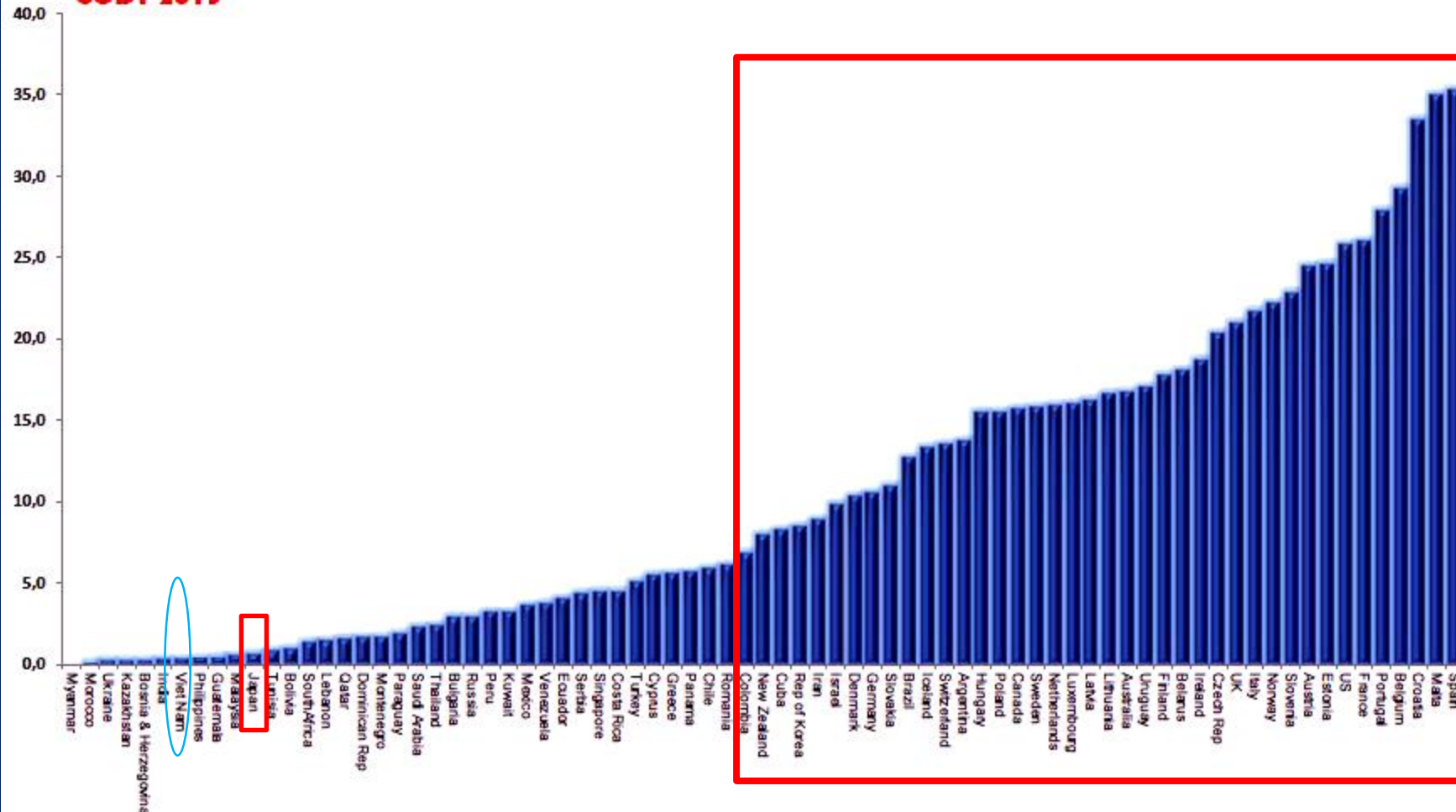


World Health Organization

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Donation from deceased persons (pmp)

GODT 2013



- ➡ 1,700 cases Kidney Tx / 92 million people
- ➡ 18,5 cases / 1 million people for 24 years

It's still too small number

It's still too small number

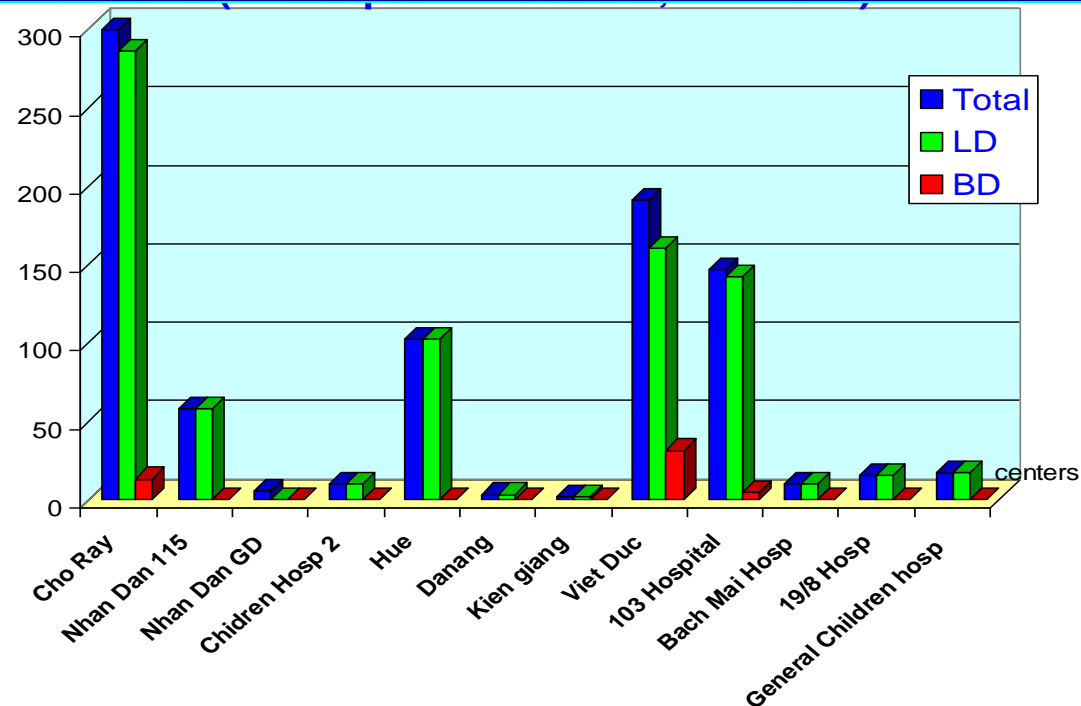
VN: there is also a big need, but shortage of donor

KIDNEY TRANSPLANTATION in Vietnam

(1992-2017)

Total: **1,700 cases** DBD: **150 (8,8%)**, DCD: **3 (0.1%)**

Live donor: **1547 (91,1%)** (almost were related)



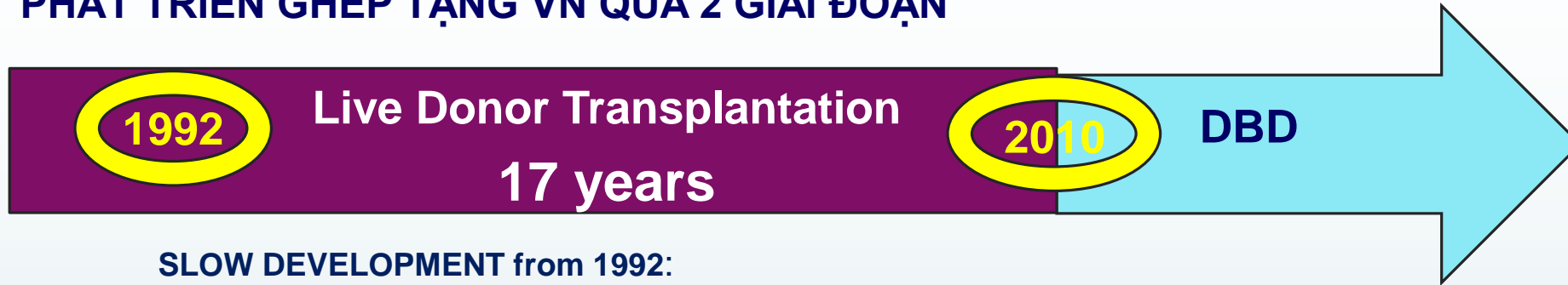
Kidney Tx started other organ Tx

	1992 - 2009 (17 năm)	2010 - 5/2017 (7 năm)
Kidney Tx	>300	>1,700
Liver Tx	18	37
Heart Tx	0	17
Pancreas- Kidney	0	1
Lung	0	1 (live donor)

DEVELOPMENT OF KIDNEY TRANSPLANTATION IN VIET NAM

BUT IT STILL SLOW DEVELOP

PHÁT TRIỂN GHÉP TẠNG VN QUA 2 GIAI ĐOẠN



SLOW DEVELOPMENT from 1992:

8 kidney transplantation centers (all of the country)

- **Kidney Transplantation: 1800 cases during 25 years** (20 cases/year)
- **Liver Transplantation: 18 cases**

Reasons of slow development:

- | | |
|---|---|
| <ul style="list-style-type: none">- Shortage of live donors: fear of surgery, so only relatives such as father, mother, siblings donated- LAP live donor nephrectomy (2004): donors, (RLAPN) | <ul style="list-style-type: none">- Waiting list: estimated 10,000 on HD/ we have not yet the National Waiting List.- The national registry for donors: is just started, The National Coordination Center is still weak, need help |
| <ul style="list-style-type: none">- High cost and low income: no health insurance during a long time (now up to 80% for recipient and 100% for donor). | <ul style="list-style-type: none">- Law of donation and Brain death: issued in 2007, but the 1st DBD until 2010 due to lack knowledge of DBD of the public. |

2006: VN National Assembly issued the law of donation, its contents:

- **Live donation:** organs, part of body and tissue
- **Brain death donation:** organs, part of body and tissue
- **National coordination and registry** of recipient
- **National tissue bank**

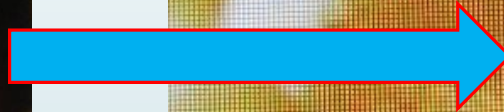
2010: **two** 1st DBD at the same day. That the volunteers, said donation, long time before accident.

Then, the brain death donation starting in Viet Nam

DONATION AFTER BRAIN DEATH (DBD), **FEB 2/2010** AT CHỢ RẪY HOSPITAL

The 1st case of Viet Nam : donated only kidney; then we had heart, liver, pancreas...

The 1st DBD Kidney



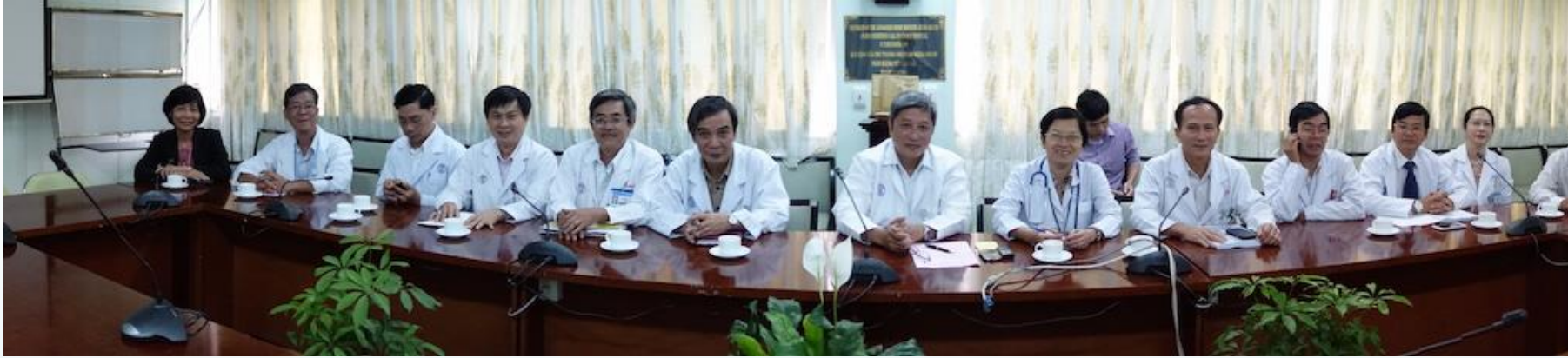
DBD

VN Scientific Events

The 1st DBD Heart-

1st DBD liver –

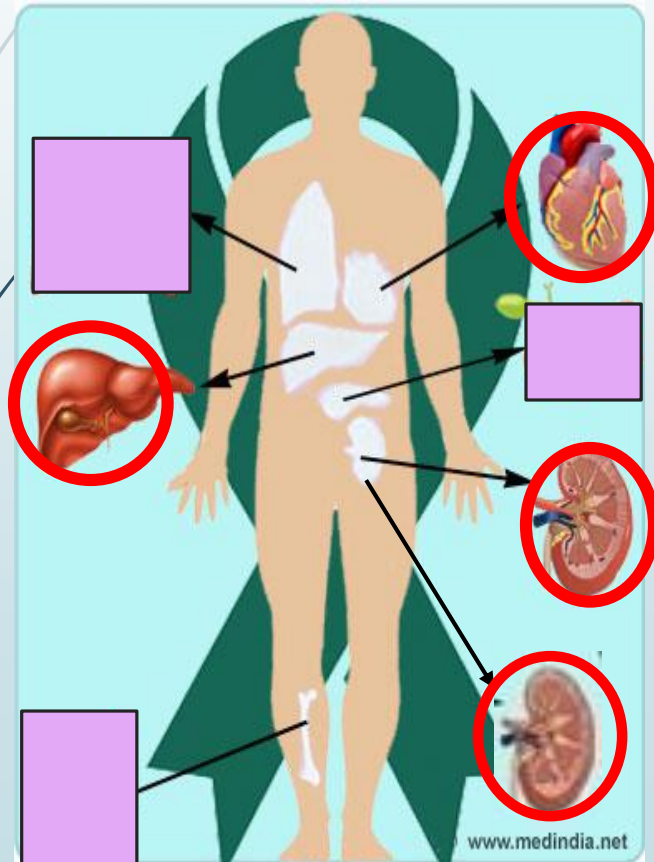
1st DBDPancreas



**Whole of Hospital approach to deceased organ donation
at Cho Ray Hospital (CRH), Ho Chi Minh City**

MULTIPLE ORGAN PROCUREMENTS

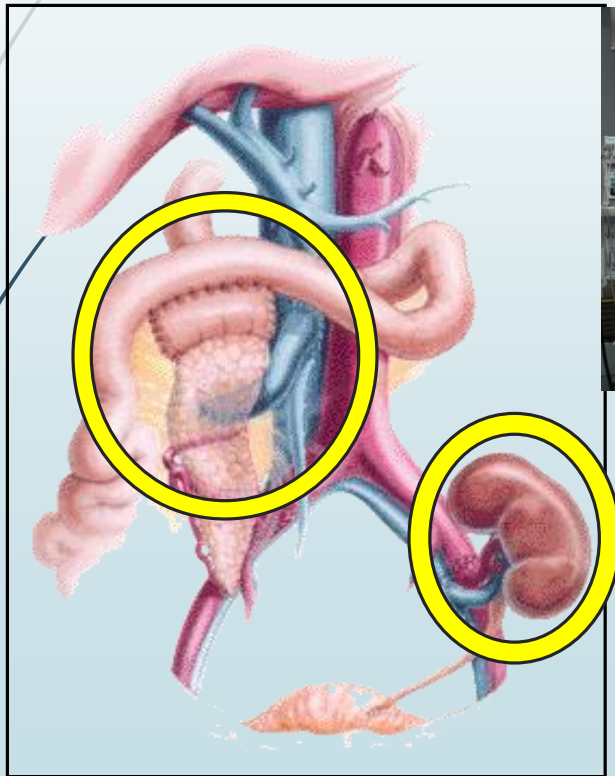
at March 14th - 2011, Viet- Duc Hospital, Hanoi, Vietnam



PANCREAS TRANSPLANTATION + KIDNEY TRANSPLANTATION

•on March 1st-2014 – (VMMA)

Ending 48 years lagging behind the world
Simultaneous pancreas-kidney (SPK) transplantation



Simultaneous pancreas-kidney
transplantation on March 1st-
2014. Post-op. 2nd day



NHBD



CRH Research team



2 recipients from NHBD
1 month after

Non Heart-Beating Donor (NHBD): on June 19th- 2015 at Cho ray Hospital

- The 3th source of donor → hope for shortage of donor
- The decision of donor and family may be easier

DECEASED DONOR TRANSPLANTATION IN VN

49

DBD

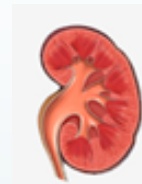


153

RECIPIENTS



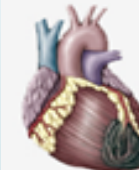
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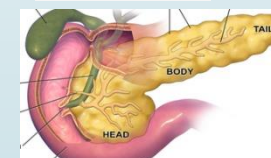
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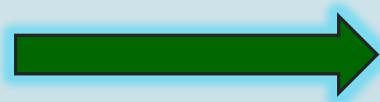
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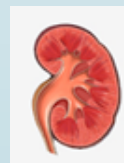
1+1



1 NHBD (DBD)



3



Carry the heart transplant for long distance from Ho Chi Minh City to Ha Noi

VIỆT ĐỨC HOSPITAL

1.700 km



5/9/2015-CHỢ RẼY
HOSPITAL



CELEBRATION THE VIET NAM SOCIETY OF TRANSPLANTATION (VSOT)

on June 26 - 2016



Establishment new society:

The Vietnam Council donation mobilization tissues, organs (VCDTO).



The President: **Prof Nguyen thi Kim Tien,**
Minister of Health



SURGICAL TECHNIQUE & SCIENTIFIC RESEARCH

- Surgical Technique: VN team can manipulate successfully
- Surgical complications within acceptable limits
- Graft survival: 5 years, was 95% in live donor group -
Longest patient: 24 year after KTx
- We regularly attend international meeting to update knowledge...

Future for KTx in Viet Nam

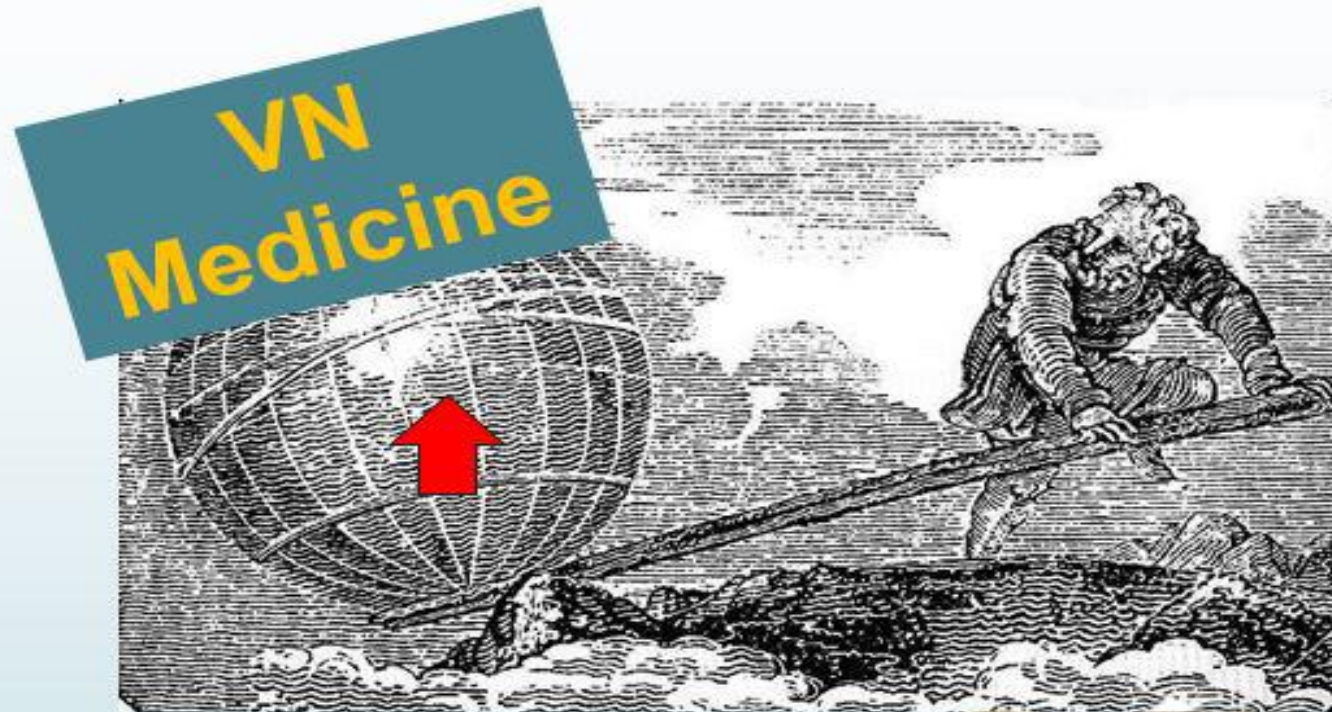
- Develop the donation –recipient network, need help from develop country
- Update the knowledge for follow-up and treatment after KTx
- Help the poor patients
- Prenetion and refuse the commercial os tourism KTx

CONCLUSION

While the developed country practice the organ transplantation every day,

We dream every day, every year,

But, with our patience and your help, we have experienced the reality



Other hand, with the success of organ transplants, starting with a kidney transplant, have contributed to the development of Vietnamese medicine



THANK YOU FOR YOUR ATTENTION

Hiến mô, tặng nhân đạo khi qua đời

THẺ ĐĂNG KÝ HIẾN TẶNG



Ông TRẦN NGỌC SINH

Số CMND: 020226532

MS:00002 79 Lê Đại Hành Quận 11 TPHCM

Cứu người, duy trì cuộc sống mãi mãi

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With Prof R. Allen
from Wesmead
Hosp (Sydney) in
Neuro Intensive
Care Unit of CRH

... no one likes to talk about organ donation in ICU..

However, with the media, education, good post-transplant results

Plus the coordinator's patience has made everyone agree more and more.



Waiting
list

Patient
charts

Cho Ray 2013 = 42 kidney transplants

VSOT 2016

Kidney transplant out patient clinic
(Cho ray Hospital)

Patient's
chair



Frank Delmonico with emerging transplant leader from Hanoi, Ha Phan Hai An.

- Participants of this Congress, including representatives of Declaration of Istanbul -Marti Manyalich, Sarah White and Mirela Busic.
- Nyugen Thi Xuyen (Vice Minister of Health) and Nguyen Truong Son (Director of Cho Ray Hospital).

With the Patients



The Tx Board



Longterm results

40



Have baby



His wife have baby

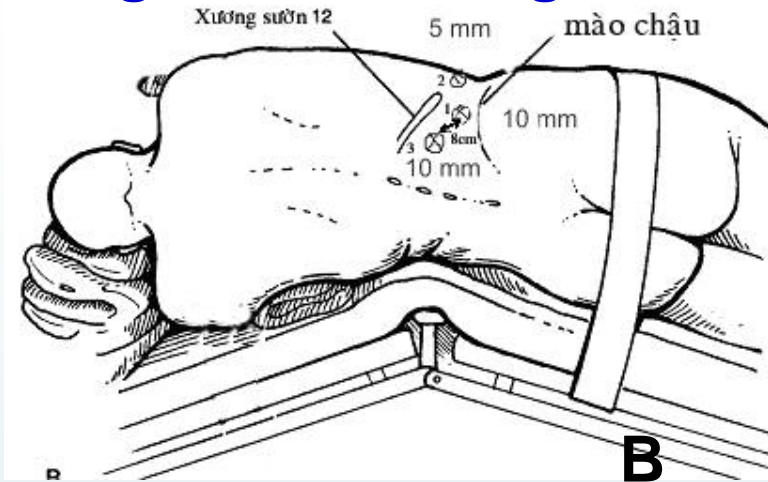
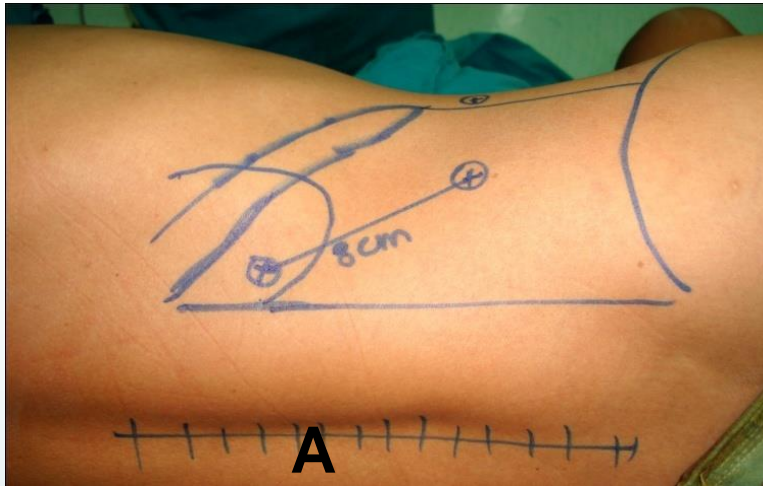




We refuse

Phẫu thuật nội soi sau phúc mạc cắt thận để ghép trên người cho sống

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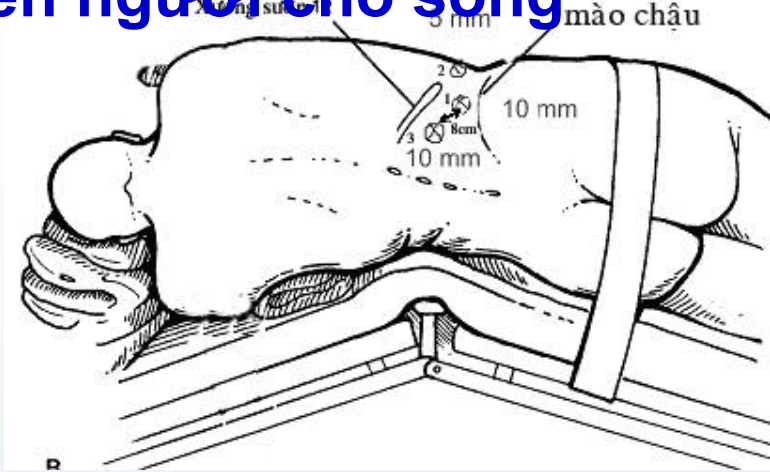
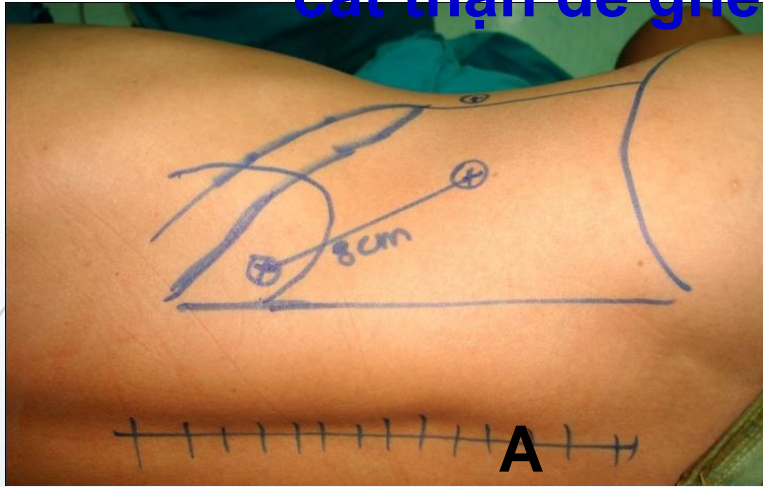


Hình 1 : Tư thế bệnh nhân và vị trí các trocar (A: chọn khoảng cách và vị trí 2 trocar 10 là 8cm; B: tư thế nằm nghiêng).



Hình 2: Tạo khoang sau phúc mạc kín và kỹ thuật nội soi với 3 trocars

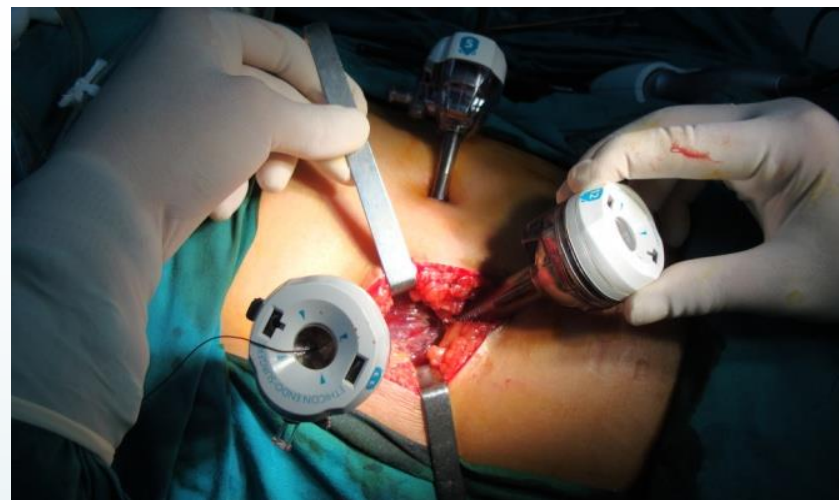
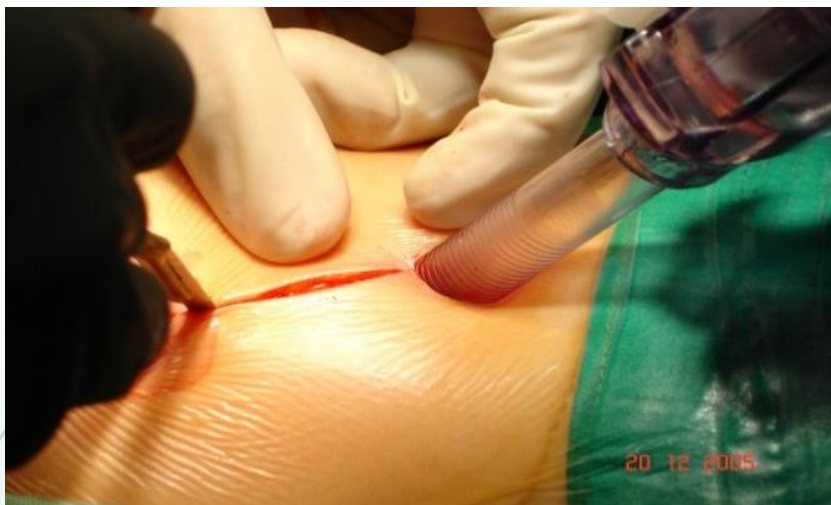
Phẫu thuật nội soi sau phúc mạc cắt thận để ghép trên người cho sống



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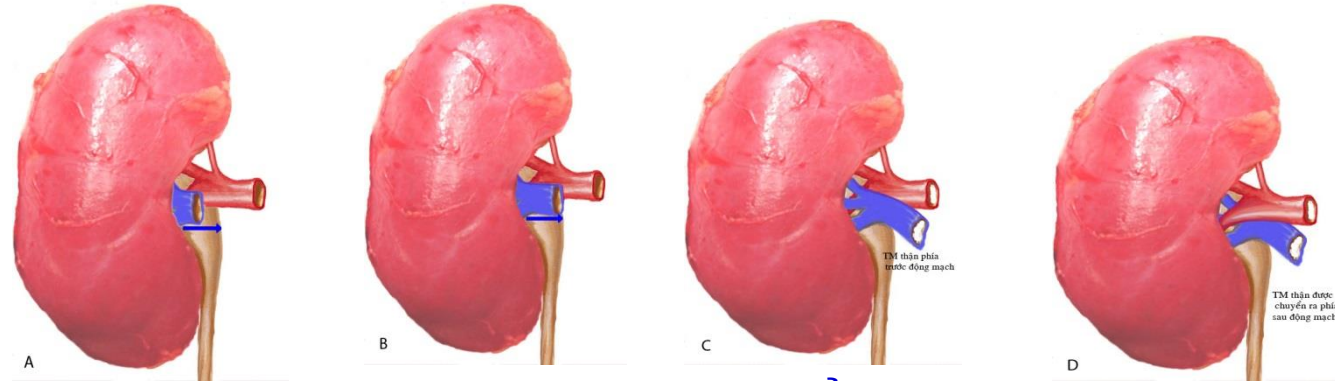


Hình 3: Rạch da nối liền 2 trocars thành đường mổ lấy thận

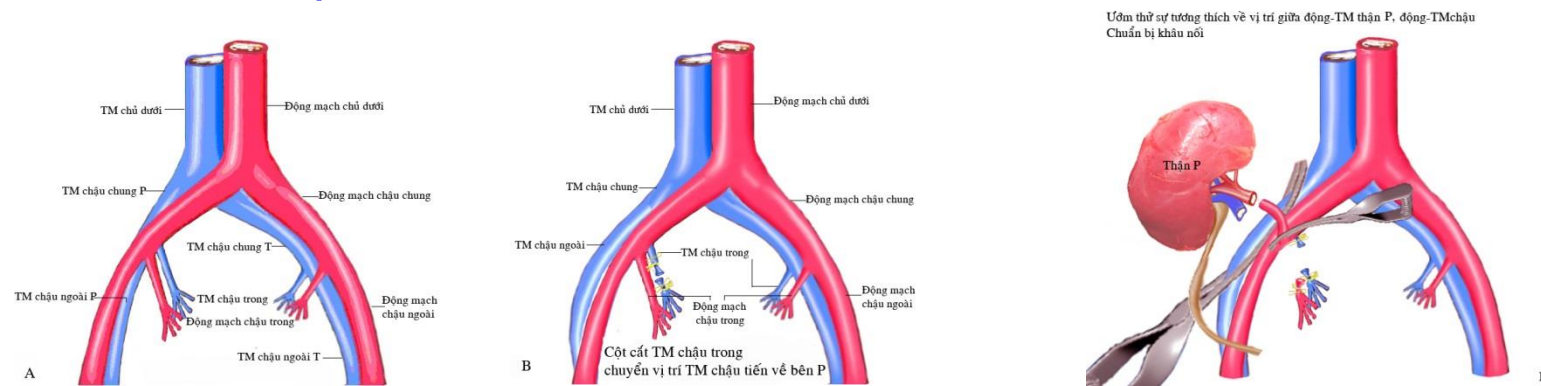


Hình 4: Kẹp mở cực dưới lấy thận ra khỏi cơ thể

QUY TRÌNH PHẪU THUẬT CHUYỂN VỊ MẠCH MÁU TRONG GHÉP THẬN CÓ MẠCH MÁU NGẮN

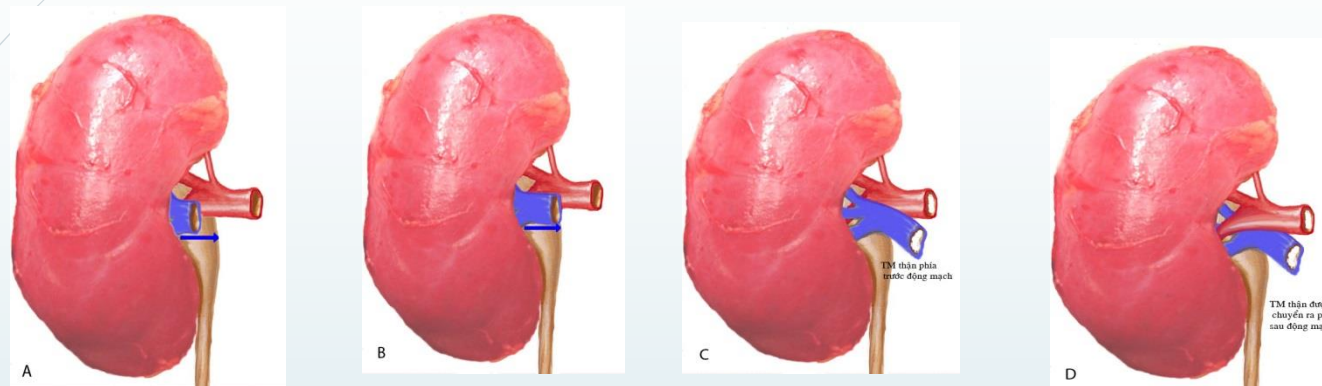


Hình 6: Mô tả các bước của kỹ thuật chuyển vị tĩnh mạch thận ở mức độ I và II: theo thứ tự A, B, C, D.

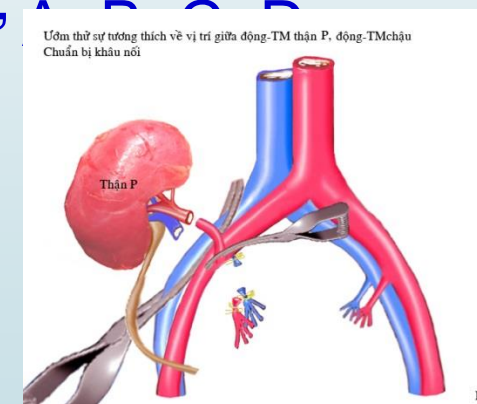
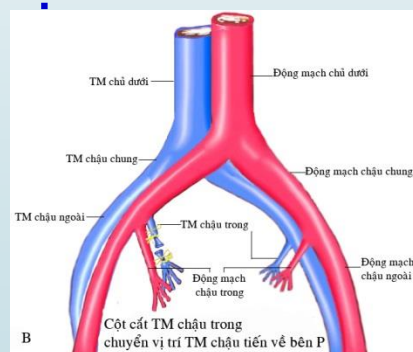
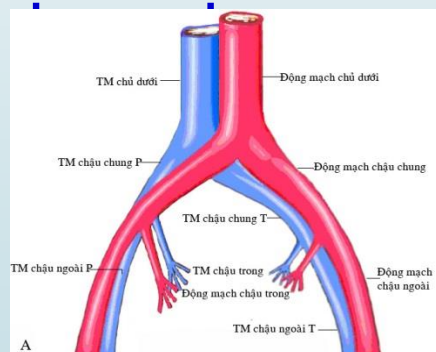


Hình 7: Mô tả kỹ thuật chuyển vị tĩnh mạch chậu: A (chuyển vị tĩnh mạch thận ở mức độ III) và mô hình ghép chuyển vị.

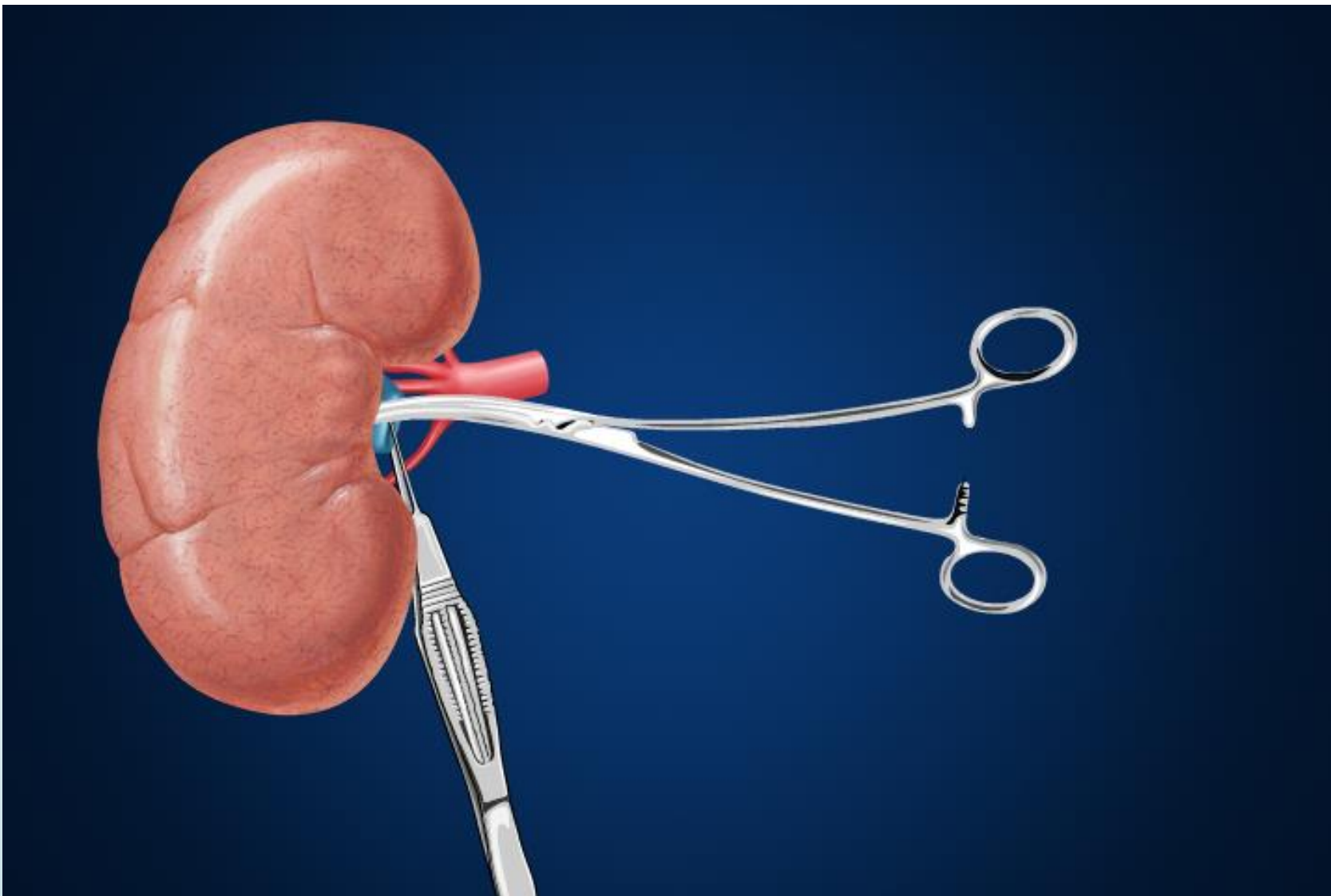
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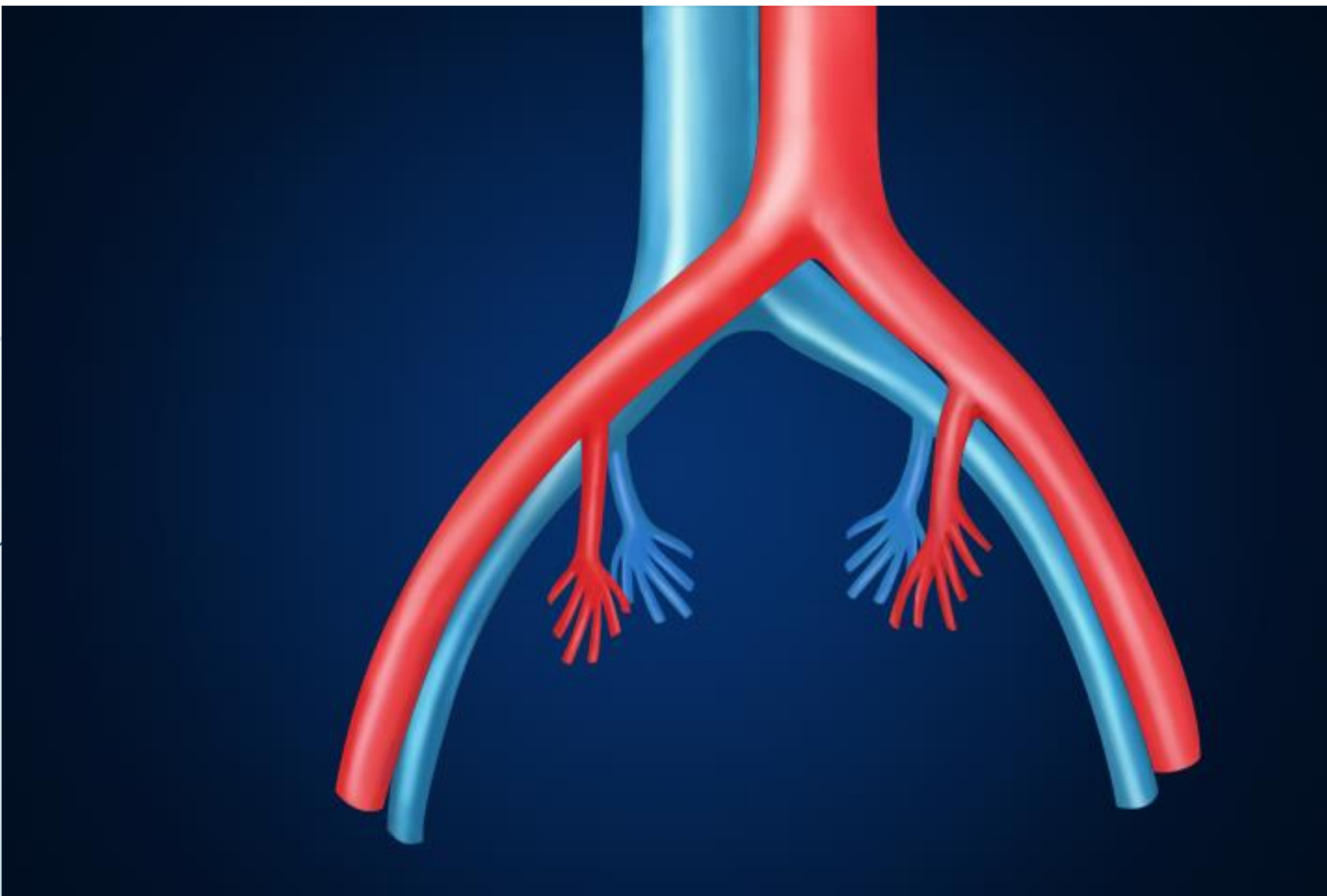
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Chuyển vị I và II: bóc tách và chuyển vị các mạch máu thận có tĩnh mạch ngấn



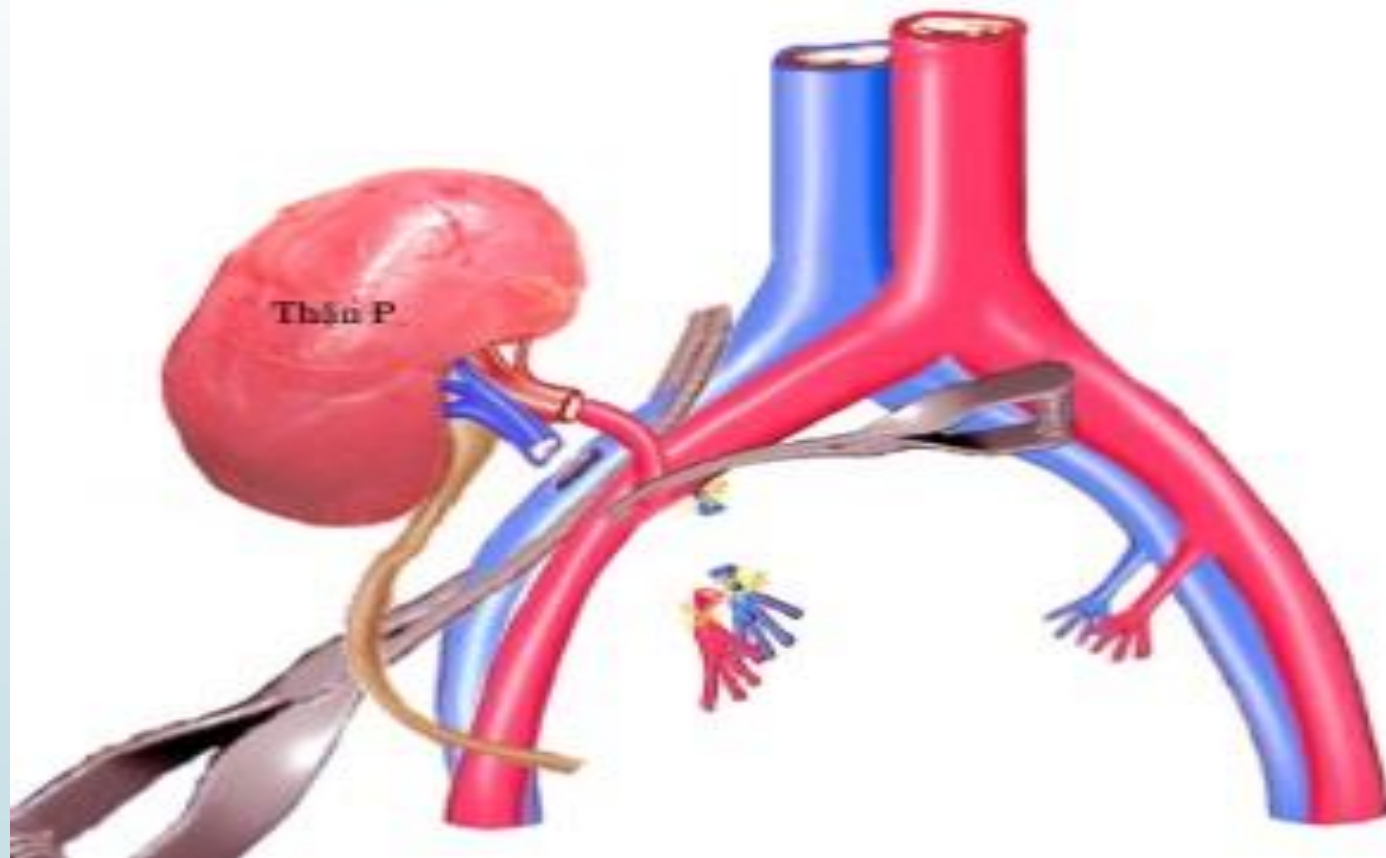
Chuyển vị III: bóch tách và chuyển vị các mạch máu chậu PHẢI



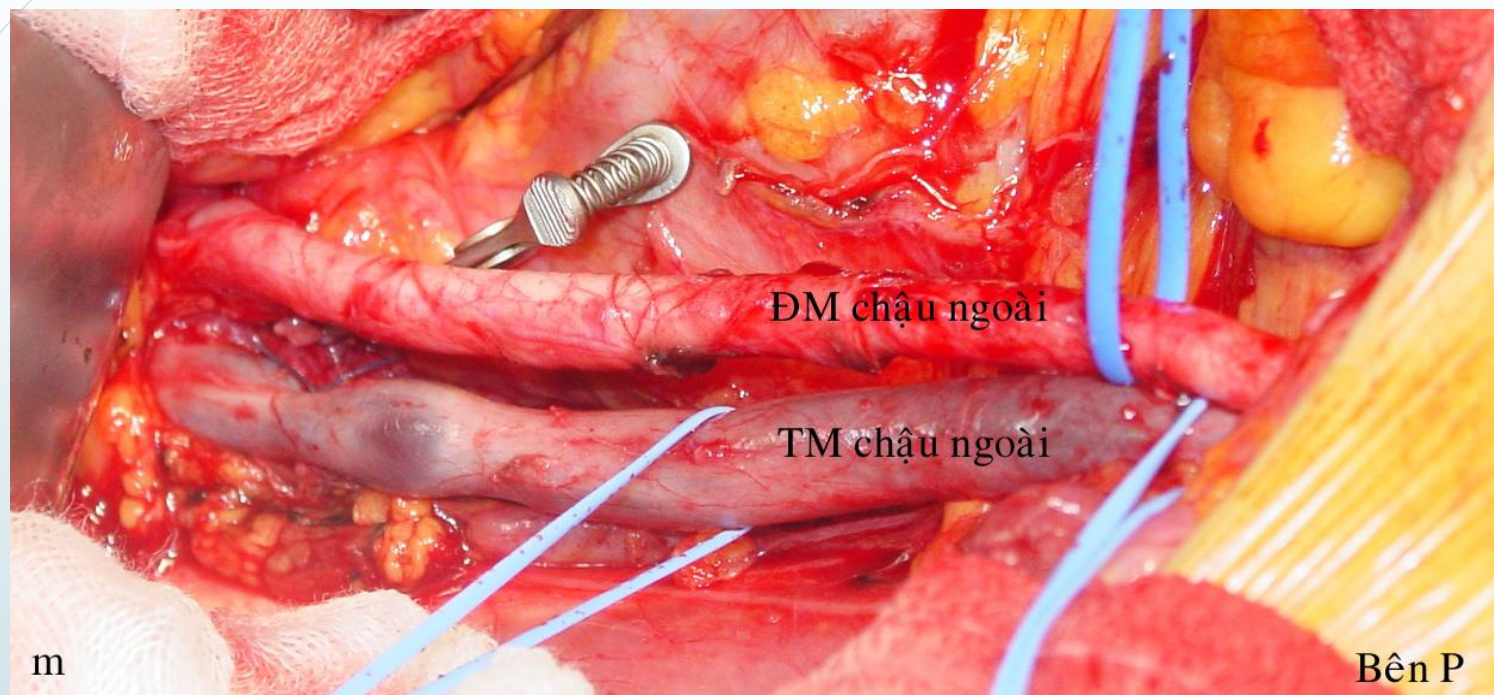
Chuyển vị I , II và III

Bệnh viện 19-8: Hội Nghị Khoa học kỷ niệm 5 năm ngày ghép thận 22/10/2013

2. PHẪU THUẬT CHUYỂN VỊ MẠCH MÁU TRONG GHÉP THẬN CÓ MẠCH MÁU NGẮN



QUY TRÌNH CỦA PHẪU THUẬT CHUYỂN VỊ MẠCH MÁU TRONG GHÉP THẬN CÓ MẠCH MÁU NGẮN



Hình 8: Tĩnh mạch chậu sau chuyển vị sang bên phải
động của mạch chậu ngoài (chuyển vị mức độ III).
Bệnh nhân Đinh Văn Nh. 41t, ghép ngày 15/12/2005.

