



第35回沖縄県人工透析研究会
March 12, 2017



沖縄県の腎移植の現況 (2016年12月31日までのまとめ)

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沖縄県の腎移植データ提供施設



沖縄県の腎移植を施行した施設(2016)

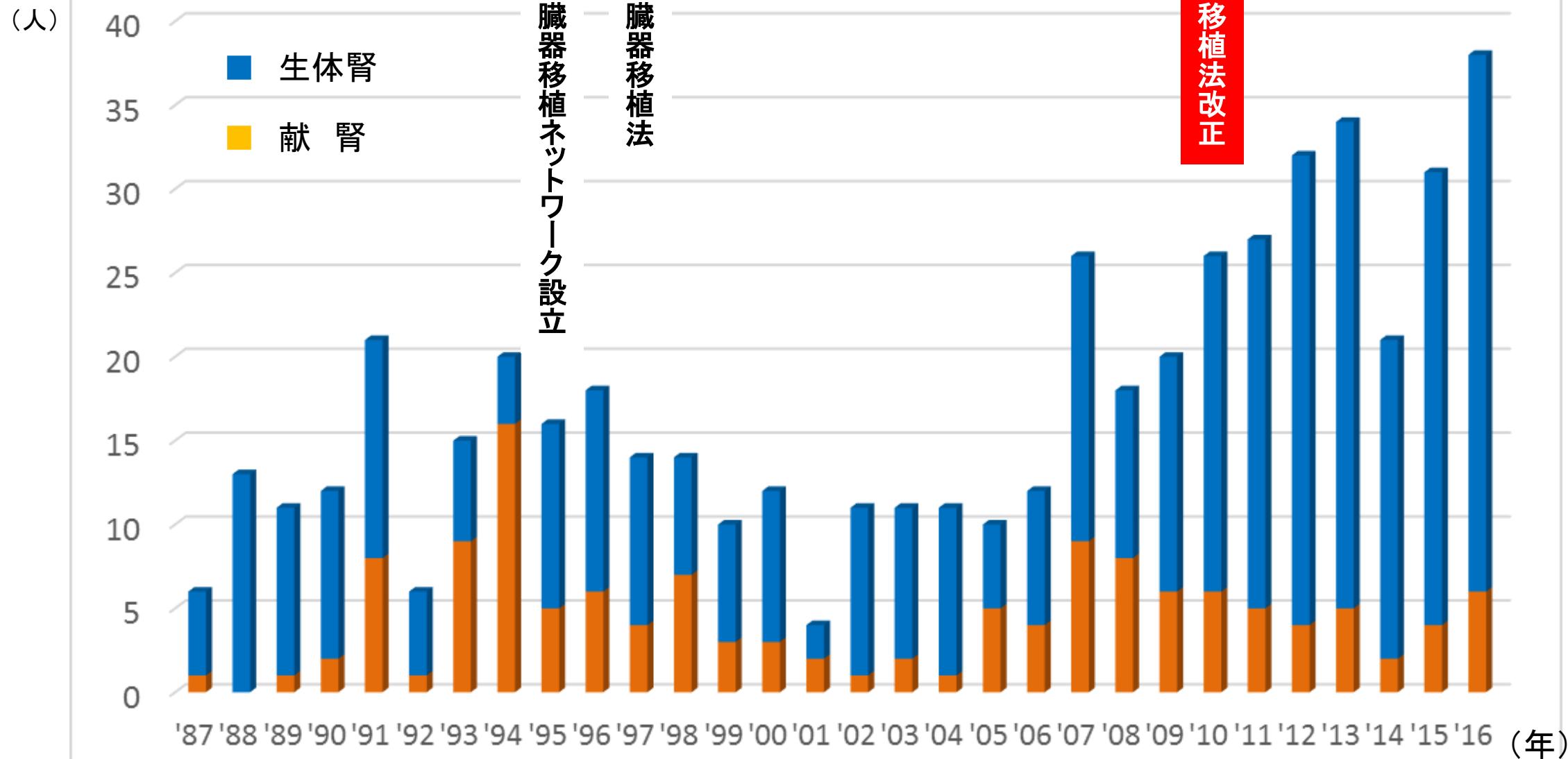


沖縄県の腎移植症例(2016年)

全38例	生体腎移植	献腎移植
症例(例)	32	6
男性(例)	24	5
女性(例)	8	1
年齢(歳)	46.00 ± 15.62 (18 - 68)	49.83 ± 11.13 (35 - 64)
平均透析期間(年)	1.97 ± 3.02 (0 - 8.75)	20.25 ± 9.79 (13.4 - 39.2)

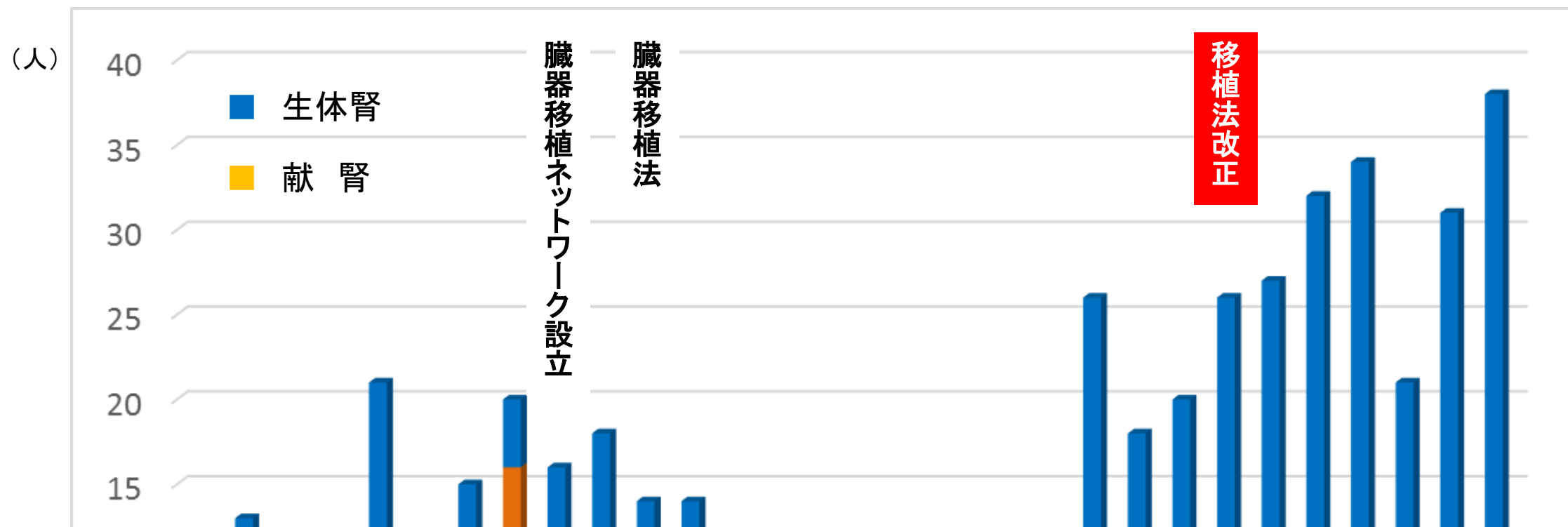
沖縄県の腎移植症例

1987年～2016年12月31日まで



沖縄県の腎移植症例

1987年～2016年12月31日まで



全 520 例

生体腎 384 例 (男性 244 例、女性 140 例)

献腎 136 例 (男性 88 例、女性 48 例)

献腎移植までの平均透析期間

移植年	透析期間(年)	症例数
2007	19.2	9
2008	14.3	8
2009	17.3	6
2010	18.9	6
2011	16.2	5
2012	15.7	4
2013	19.8	5
2014	12.9	2
2015	22.1	4
2016	20.3	6

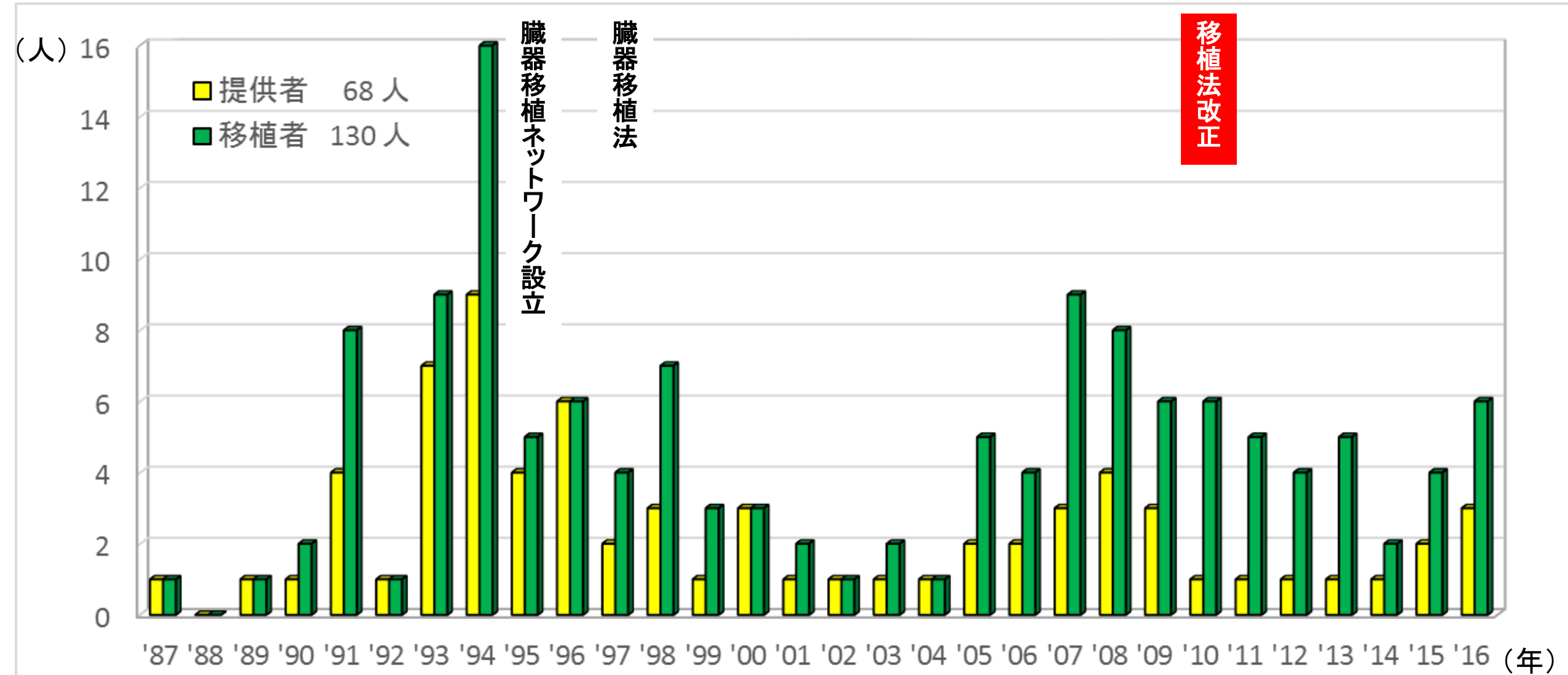
17.6年

献腎移植レシピエント(2015)

平均待期期間 12.7年

沖縄県献腎提供・移植者数の推移

1987年～2016年12月31日まで



腎移植レシピエントの原疾患（全520例）

CGN (IgA腎症を含む)	328(17)	間質性腎炎	5(1)
SLE	31(2)	腎硬化症	13(4)
低形成腎	15(1)	Goodpasture症候群	2
ネフローゼ	6	Henoch Schlein	2
DM	42(7)	後部尿道弁	1
MPGN	10(1)	Alport症候群	2(1)
RPGN	4	VUR	3(1)
FGS	6(2)	ANCA関連腎炎	3(1)
DPGN	2	ミトコンドリア脳筋症	1
嚢胞腎	10	その他	31

生体腎移植ドナー (384 例)

レシピエントとの関係

母親	96	(9)	子供	21	(1)
父親	73	(5)	配偶者	108	(12)
兄弟	42	0	親戚	4	(2)
姉妹	39	(2)			

()は2016年の症例数

移植腎機能喪失の原因(全例)

1987年～2015年12月31日まで

118(移植腎喪失例)／520(全例) = **22.7%**

慢性拒絶反応	58(1)	原疾患の再発	5
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急性拒絶反応	5	FGS再発	2
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Primary NF	7	PTLD	1
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死亡	33(1)	膿腎症	1
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静脈血栓症	3	不明	4(1)
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()は2016年の症例数

移植腎機能喪失の原因（生体腎・献腎別）

1987年～2016年12月31日まで

	生体腎	献腎
慢性拒絶反応	45 (1)	13
急性拒絶反応	4	1
Primary NF	1	6
死亡	12 (1)	20
静脈血栓症	1	1
原疾患の再発	5	0
FGS再発	2	0
PTLD	0	1
膿腎症	1	0

()は2016年の症例数

Topic

献腎移植

先行的腎移植

Topic

献腎移植

先行的腎移植

腎移植の王道は献腎移植である

腎移植総数 1,661 例/年

生体腎移植 1,494例

(2015年 139施設)

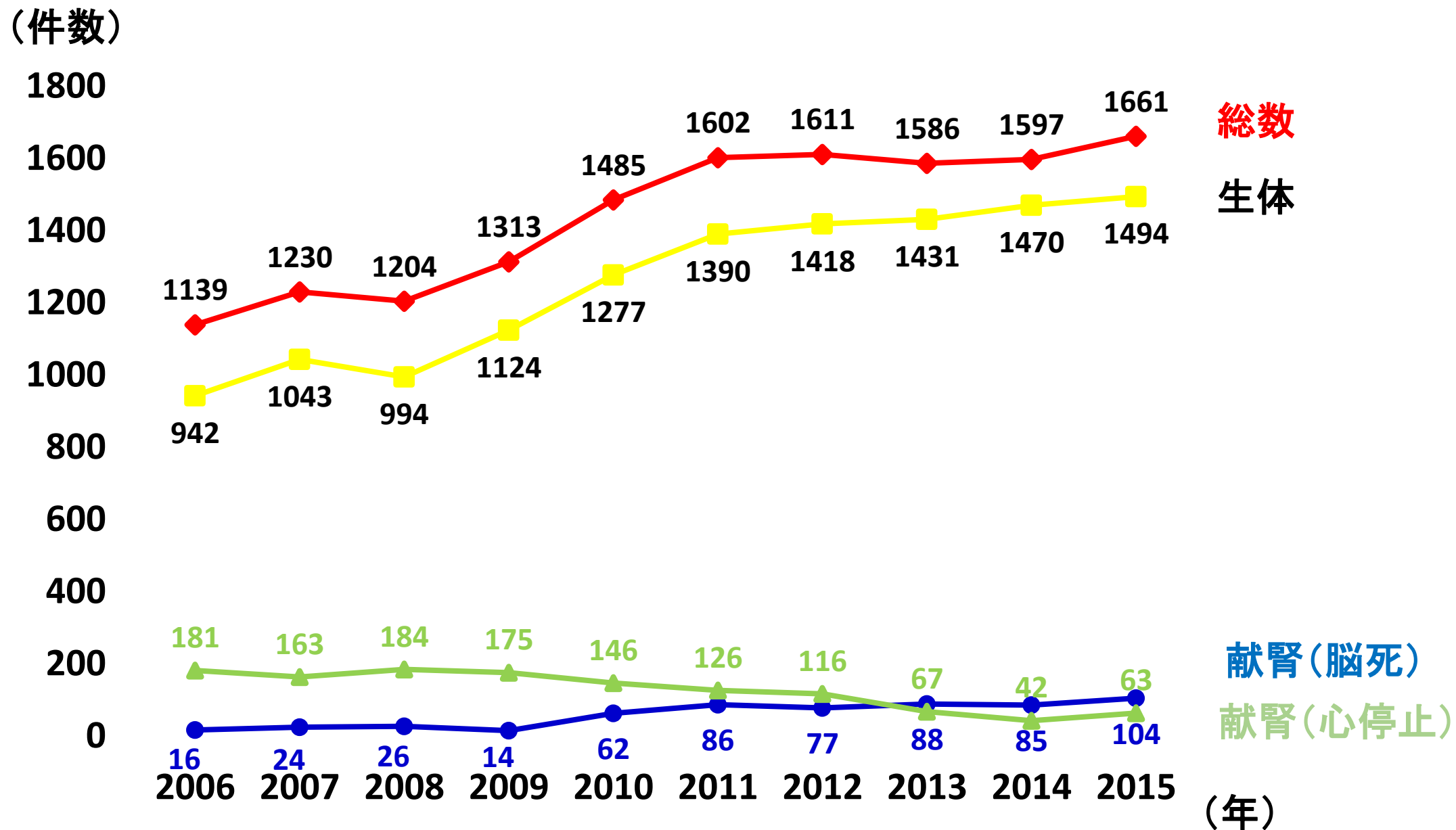
2015年 日本の腎移植件数

総数	生体腎	献腎 (脳死)	献腎 (心停止)
1,661 (+64)	1,494 (+24)	104 (+19)	63 (+21)

(): 2014年との比較

症例数確認調査(2016年1月)により確認 3月15日現在

日本の腎移植件数 年次推移



2015年 日本の腎移植件数(ブロック別)

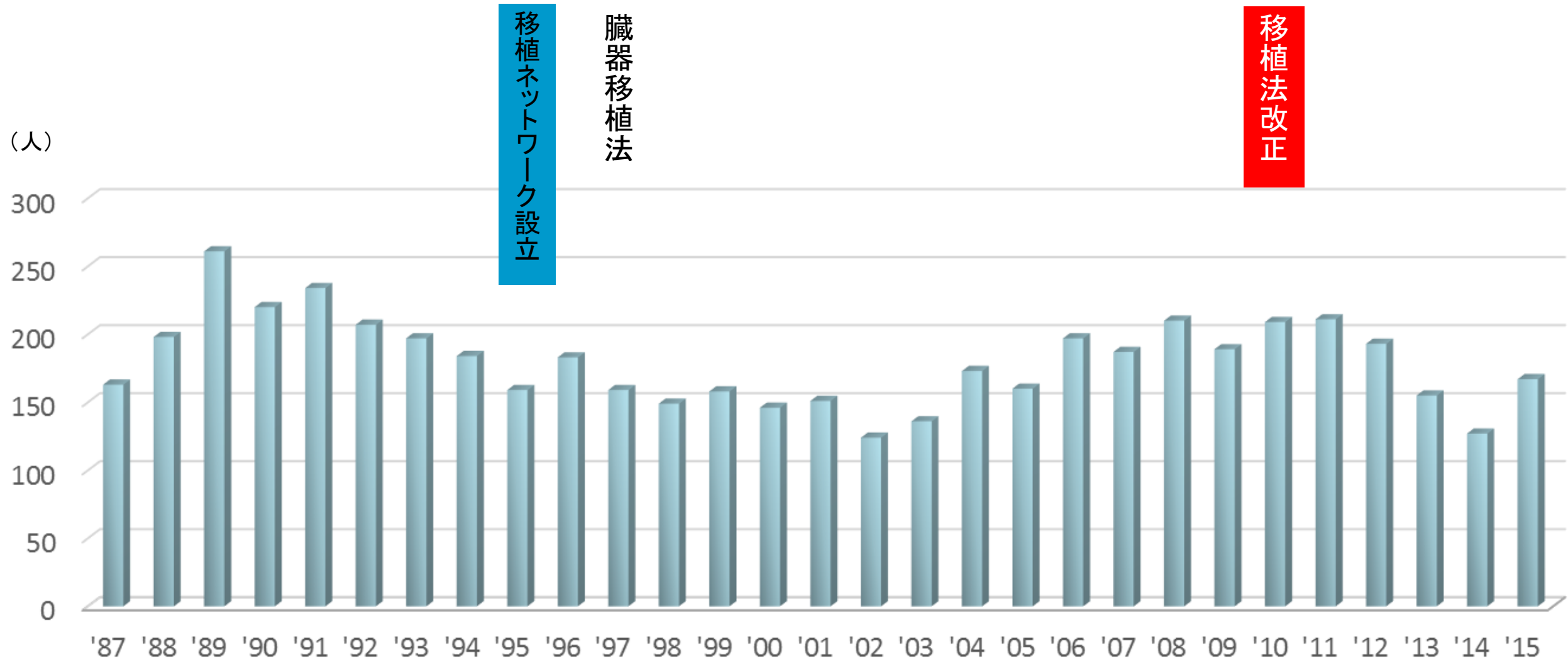
	生体腎	献腎(脳死)	献腎(心停止)	合計
北海道	61 (4.1%)	9 (8.7%)	6 (9.5%)	76 (4.6%)
東北	67 (4.5%)	2 (1.9%)	2 (3.2%)	71 (4.3%)
関東・甲信越	573 (38.4%)	31 (29.8%)	18 (28.6%)	622 (37.4%)
東海・北陸	240 (16.1%)	23 (22.1%)	17 (27.0%)	280 (16.9%)
近畿	226 (15.1%)	20 (19.2%)	6 (9.5%)	252 (15.2%)
中国四国	174 (11.6%)	11 (10.6%)	2 (3.2%)	187 (11.3%)
九州・沖縄	153 (10.2%)	8 (2.7%)	12 (19.0%)	173 (10.4%)

移植件数 (n=1,661)

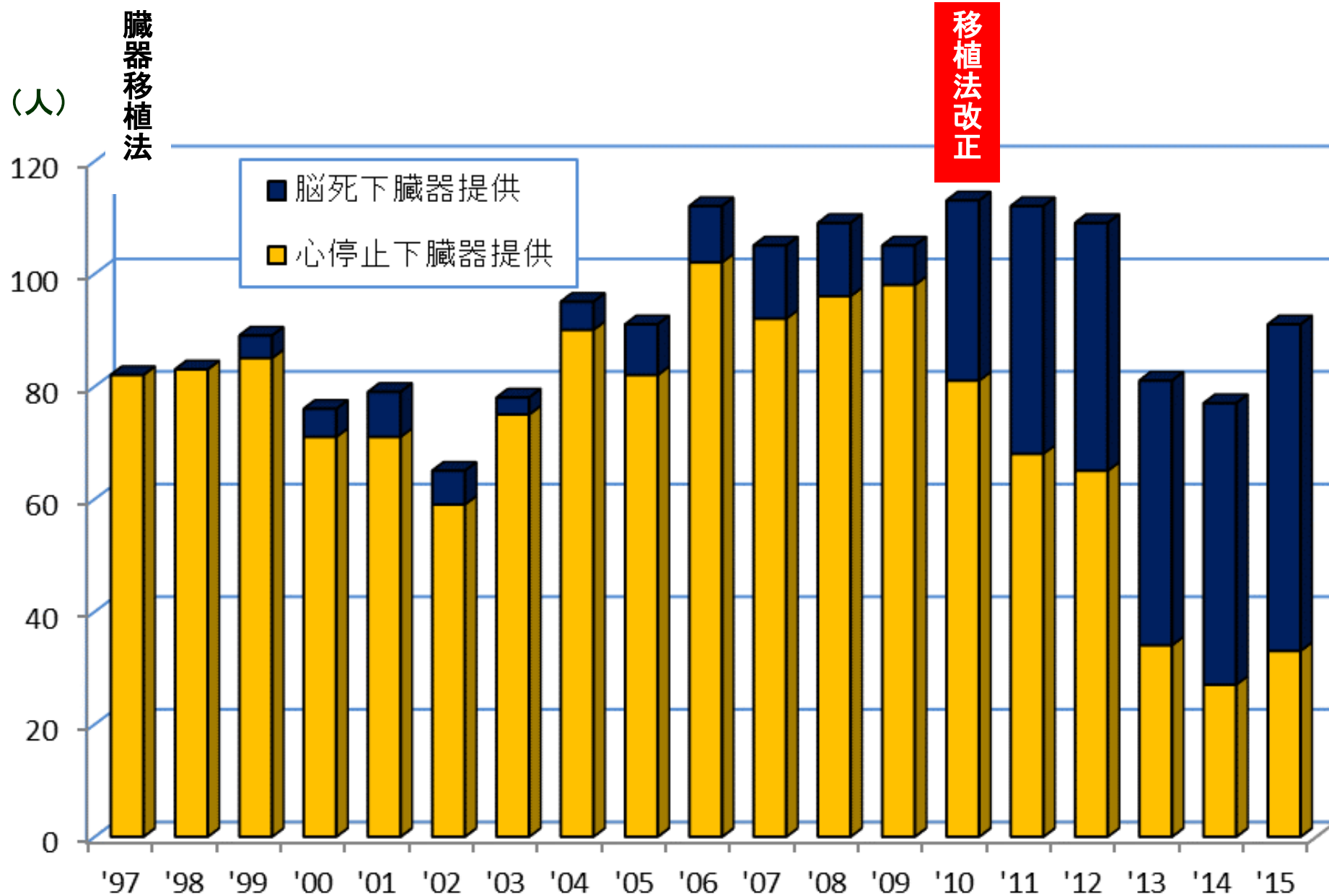
2015年 九州・沖縄の腎移植件数 (2014年との比較)

	生体腎	献腎(心停止)	献腎(脳死)	合計
九州・沖縄	153 (-34)	8 (+0)	12 (+1)	173 (-33)
福岡	60 (-44)	4 (-2)	5 (-3)	69 (-49)
佐賀	1 (+1)	0 (+0)	0 (+0)	1 (+1)
長崎	12 (+4)	0 (+0)	2 (+1)	14 (+5)
熊本	23 (-12)	1 (+0)	0 (+0)	24 (-12)
大分	9 (+5)	0 (+0)	2 (+2)	11 (+7)
宮崎	1 (-1)	1 (+1)	0 (+0)	2 (-1)
鹿児島	20 (+6)	1 (+0)	0 (+0)	21 (+6)
沖縄	27 (+8)	1 (+1)	3 (+1)	31 (+10)

全国の献腎移植者数の推移(1997～2015年)



全国 臓器提供者の動向(1997～2015年)



Topic

献腎移植

先行的腎移植

プロローグ

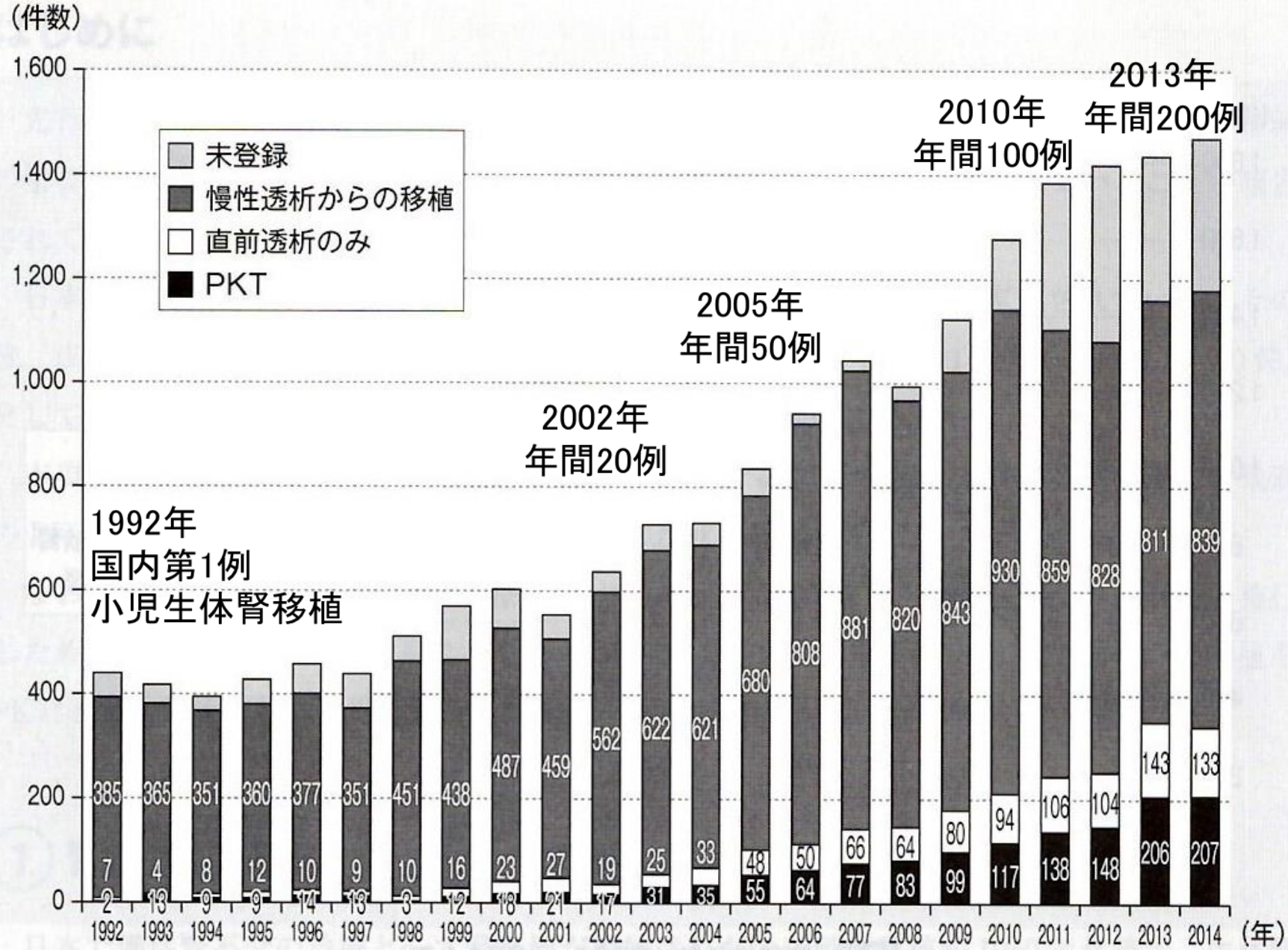
先行的腎移植

(preemptive kidney transplantation : PEKT)

プロローグ

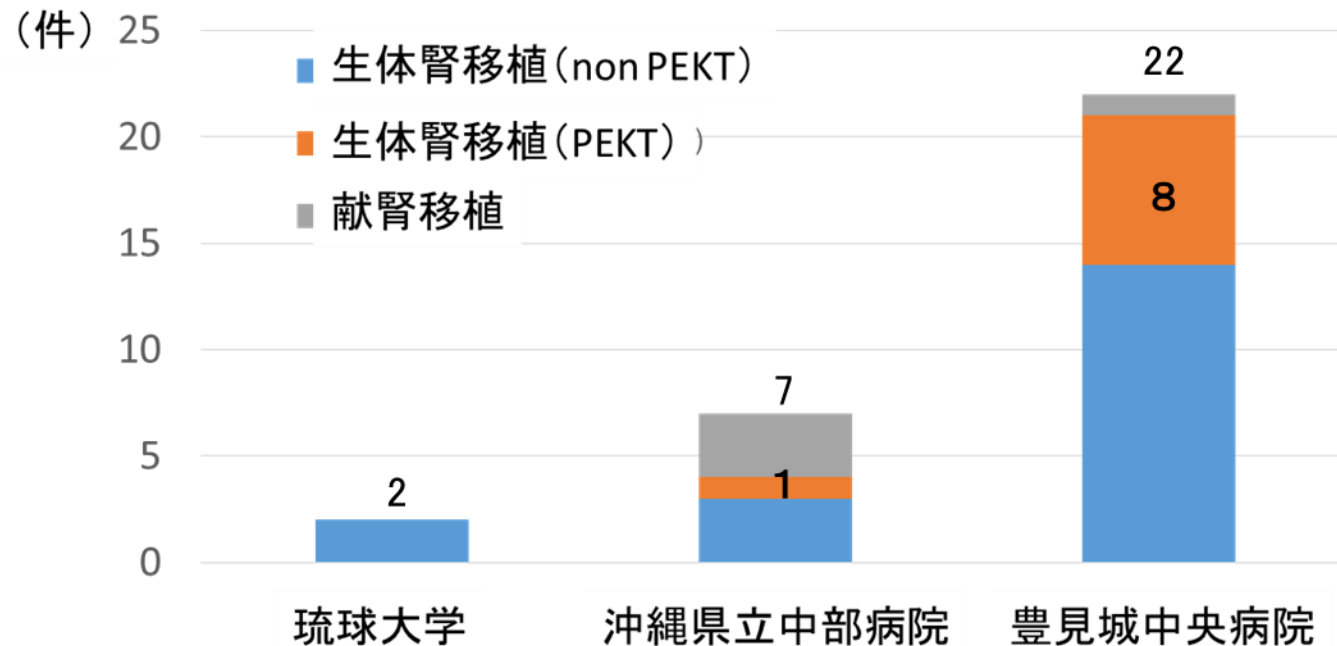
透析を経ないで腎移植

日本の先行的腎移植件数 年次推移



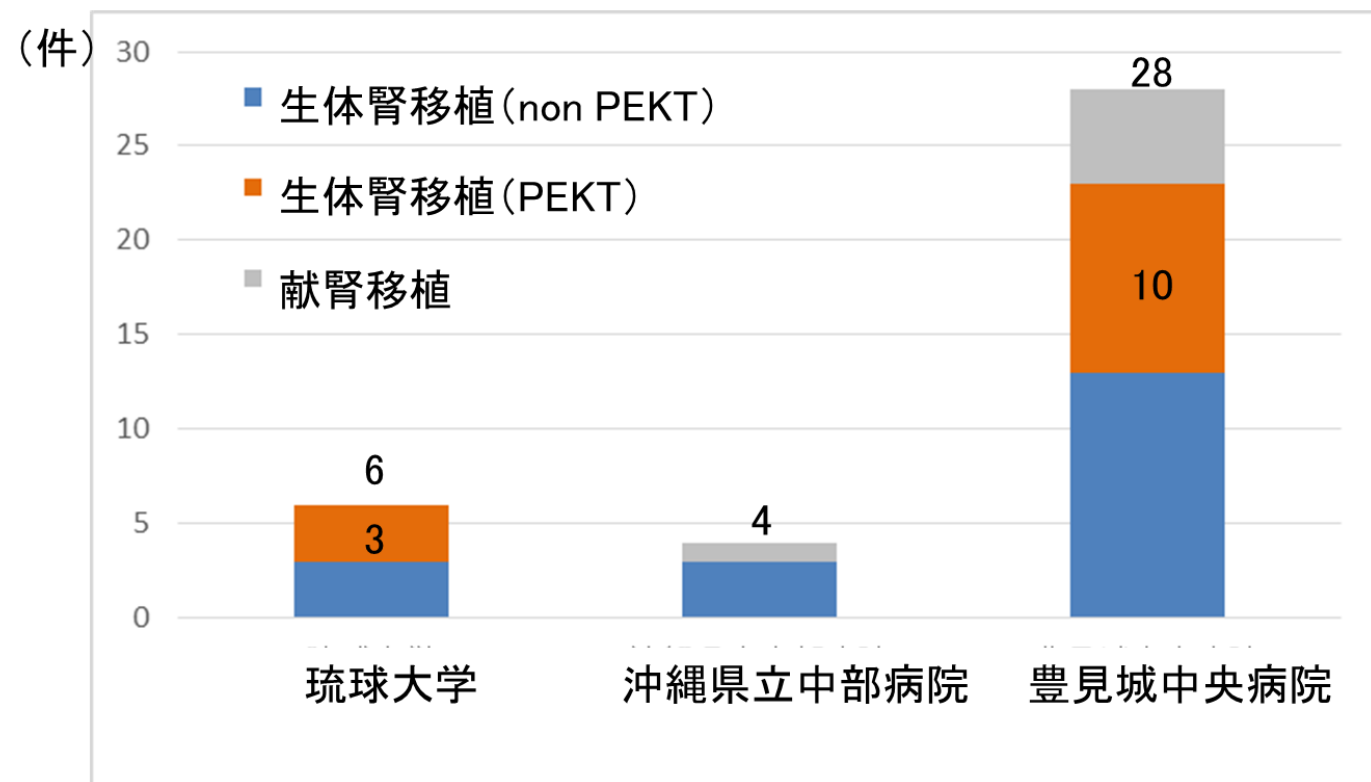
2015年 沖縄の腎移植件数 (2014年との比較)

	生体腎	献腎(心停止)	献腎(脳死)	合計
九州・沖縄	153 (-34)	8 (+0)	12 (+1)	173 (-33)
沖縄	27 (+8)	1 (+1)	3 (+1)	31 (+10)
平均透析期間 (年)	3.9 ± 5.2 (0 - 9)	22.1 ± 6.9 (14 - 22)		6.3 ± 8.2 (0 - 22)



PEKT 25.8 %

沖縄県の先行的腎移植症例(2016)



PEKT 34.2 %

世界最高レベルの透析医療を提供
できる日本でもPEKTが優位か

D081 生体腎移植における透析期間と腎移植予後についての検討

名古屋第二赤十字病院 移植外科 後藤 憲彦

n=786 (PEKT 239) 2001年11月～2013年12月

死亡、腎喪失、心血管疾患発症の予測因子を検討

イベント発症 PEKT 8名、non PEKT 70名

イベント発症のリスク因子は血液型不適合、透析期間、DM腎症

透析期間を短く移植を遂行する→患者予後を改善するかも

日本におけるPEKT vs non PEKT

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Clin J Am Soc Nephrol. 2016 Mar 7;11(3):497-504. doi: 10.2215/CJN.08670815. Epub 2016 Jan 4.

Association of Dialysis Duration with Outcomes after Transplantation in a Japanese Cohort.

Goto N¹, Okada M², Yamamoto T², Tsujita M², Hiramitsu T², Narumi S², Katayama A³, Kobayashi T⁴, Uchida K³, Watarai Y².

[+ Author information](#)

Abstract

BACKGROUND AND OBJECTIVES: Evidence regarding the differences in clinical outcomes after preemptive kidney transplantation (PKT) and non-PKT in Japan is lacking.

DESIGN, SETTING, PARTICIPANTS, & MEASUREMENTS: We conducted a retrospective cohort study at a single center in Japan. Consecutive patients ages >18 years old who had received a kidney transplant from a living donor between November of 2001 and December of 2013 at our institution (n=786) were enrolled. The primary study outcome was the occurrence of clinical events before the end of 2014. Clinical events were defined as any of the following: death with functioning graft (DWFG), graft loss, or post-transplant cardiovascular disease (CVD).

RESULTS: The median follow-up period was 61.0 (35.3-94.0) months. PKT was performed in 239 patients (30.4%). Clinical events occurred in 78 (9.9%). In the Cox proportional hazard model for univariate analysis, factors found to be associated with higher risk of clinical events included older age, men, ABO incompatibility, longer dialysis duration, diabetes, pretransplant CVD, and large ventricular mass index. PKT was associated with lower risk. Clinical event rate in patients who received a PKT was 3.3% compared with 10.8%, 11.1%, 10.4%, 10.2%, 16.7%, and 16.2% among patients who were on dialysis for <1, 1 to <2, 2 to <3, 3 to <4, 4 to <5, and ≥5 years before transplant, respectively (P=0.002). The multivariate analysis showed that ABO incompatibility (hazard ratio [HR], 2.98; 95% confidence interval [95% CI], 1.89 to 4.71), duration of dialysis per year (HR, 1.07; 95% CI, 1.03 to 1.11), and diabetes (HR, 3.54; 95% CI, 2.05 to 6.12) were only three independent risk factors for the incidence of clinical events.

CONCLUSIONS: Even in Japan, where the long-term outcomes of patients on hemodialysis are excellent, PKT could be beneficial to reduce DWFG, graft loss, and post-transplant CVD.

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KEYWORDS: cohort studies; humans; kidney transplantation; living donor; living donors; proportional hazards models; renal dialysis; risk factors

PMID: [26728589](#) PMCID: [PMC4791830](#) [Available on 2017-03-07] DOI: [10.2215/CJN.08670815](#)

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Association of Dialysis Duration with Outcomes after Transplantation in a Japanese Cohort

Norihiko Goto,* Manabu Okada,* Takayuki Yamamoto,* Makoto Tsujita,* Takahisa Hiramitsu,* Shunji Narumi,* Akio Katayama,[†] Takaaki Kobayashi,[‡] Kazuharu Uchida,[†] and Yoshihiko Watarai*

Abstract

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Conclusions Even in Japan, where the long-term outcomes of patients on hemodialysis are excellent, PKT could be beneficial to reduce DWFG, graft loss, and post-transplant CVD.

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Take home messages

沖縄県の腎移植は、全国と同様、安全かつ標準的な腎代替療法となっている。

PEKTは、腎代替療法として推奨される。