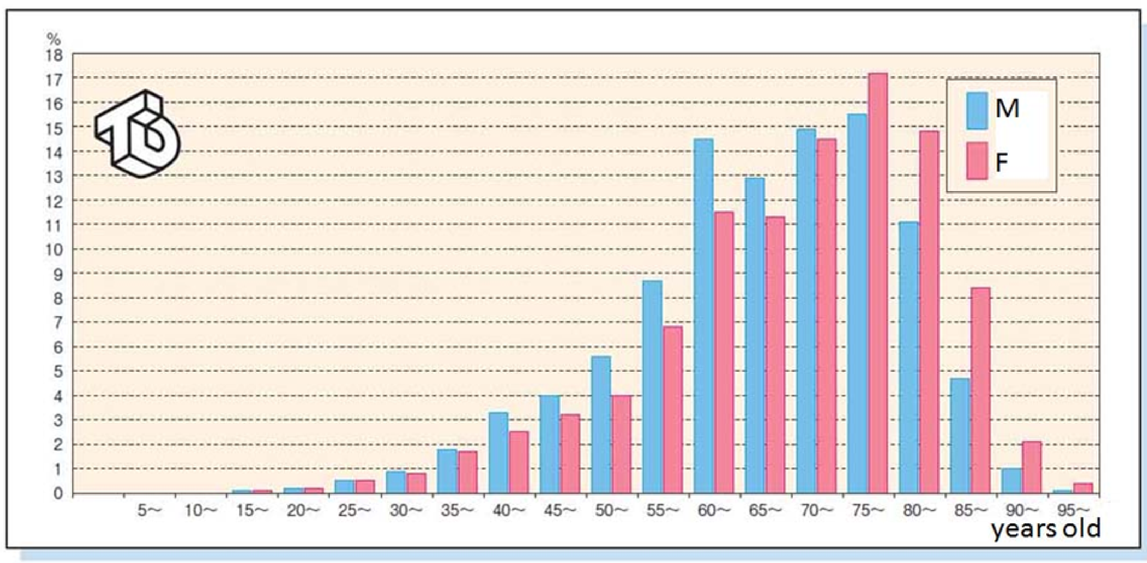
MP589 :The Comparative Evaluation Concerning the Start of Dialysis between Elderly and Younger Patients in Japan

*Shinichi Nishi, Shunsuke Goto, Kentaro Nakai, Keiji Kono, Yuriko Yonekura, Jun Ito, Hideki Fujii
Division of Nephrology and Kidney Center, Kobe University Graduate School of Medicine, Kobe, Japan

Introduction: Many elderly CKD patients start dialysis treatment in Japan. Median age at starting dialysis is more than 70 years-old and ageing tendency has not stopped yet (Fig.1). The elderly CKD patients have various senile complications and are anticipated to start dialysis treatment in earlier phase from uremic complications. We evaluated the clinical data at the beginning of dialysis concerning renal function and uremic conditions focusing on elderly patients.

Methods: We retrospectively evaluated 1829 stage-5 CKD patients who newly started dialysis from 2004 to 2008. Thirty one % of them were diabetic patients. They were divided into 3 groups; younger age group (YAG) <65 years-old n=989, middle age group (MAG) from 65 to 75 n=487 years-old, and higher age group (HAG) >75 years-old n=353 (Fig. 2). Clinical data including S-Cr, eGFR, Ccr, electrolytes and acid-base balance disorders were compared among three groups. ANOVA, Student-t, chi-square tests were used as statistical methods. P value less than 0.01 was considered to be significant in this study.

Fig1. Ages at the new start of dialysis in Japan



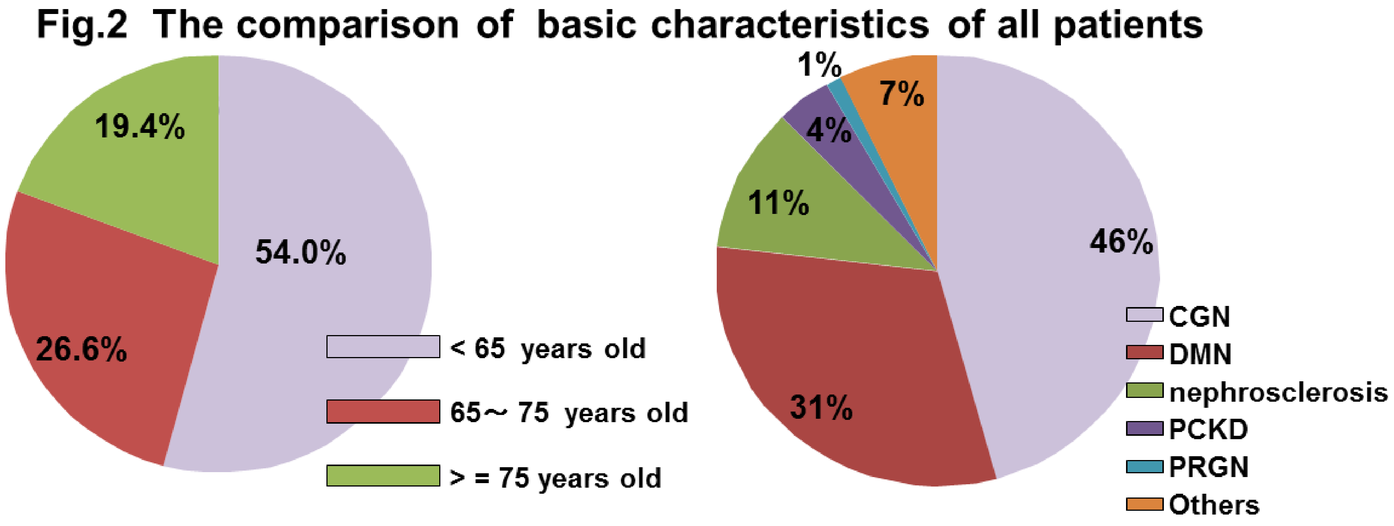
2011 Data from Japanese Society of Dialysis Treatment

Table 1. Basic patients profiles in three age groups

		YAG (n=989) < 65 years old	MAG (n= 487) 65 – 75 years old	HAG (n=353) >= 75 years old	
age	y.o.	50.9 ± 0.3	69.4 ± 0.4	79.9 ± 0.43	<.0001
BL	cm	163.5 ± 1.5	155.4 ± 2.2	152.3 ± 2.58	<.0001
BW	kg	56.3 ± 0.3	52.1 ± 0.5	47.9 ± 0.54	<.0001
BMI	m/Kg2	21.7 ± 0.1	21.5 ± 0.2	20.9 ± 0.19	0.001
UV	mL/day	863.4 ± 20.8	790.1 ± 29.8	690.0 ± 35.22	<.0001
S-K	mEq/L	4.8 ± 0.0	4.7 ± 0.0	4.7 ± 0.05	0.76
Ht	%	24.1 ± 0.2	23.7 ± 0.2	24.7 ± 0.29	0.024
TP	g/dL	6.2 ± 0.0	6.2 ± 0.0	6.1 ± 0.04	0.079
Alb	g/dL	3.7 ± 0.0	3.5 ± 0.0	3.5 ± 0.04	<.0001
HCO3-	mEq/L	18.6 ± 0.2	18.4 ± 0.3	19.3 ± 0.29	0.033
pH		7.3 ± 0.0	7.3 ± 0.0	7.3 ± 0.00	0.025
SBP	mmHg	156.9 ± 0.8	155.2 ± 1.2	156.6 ± 1.37	0.477
DBP	mmHg	85.9 ± 0.5	79.8 ± 0.7	78.3 ± 0.80	<.0001
CTR	%	61.0 ± 0.3	58.7 ± 0.5	58.8 ± 0.58	<.0001

UV: urine volume

Fig.2 The comparison of basic characteristics of all patients



Conclusion: From the evaluation of renal function, commencing time of dialysis was even in three groups. S-Cr was not useful as a marker to determine the beginning of dialysis. **From the data of eGFR and Ccr, elderly CKD patients were not the early dialysis starter.**

The beginning of dialysis in HAG group was performed in milder electrolytes and acid-base balance disorders compared to younger groups. This might be induced from the higher rate of over volume clinical findings such as edema and dyspnea.

Results: BMI, albumin, diastolic blood pressure, CTR were significantly lower in HAG group (p<0.001). Serum potassium, hematcrit and HCO3- showed milder tendency, while did not indicate significant differences between three groups (Table 1,).

S-Cr was significantly lower in HAG group (p<0.01), while eGFR and Ccr were not significantly different among three groups (Fig3,Table2). Over volume sings including edema and dyspnea on effort emerged at significantly higher rate in HAG group (p<0.005) (Table 3).

Fig.3 The comparison of renal function in three groups

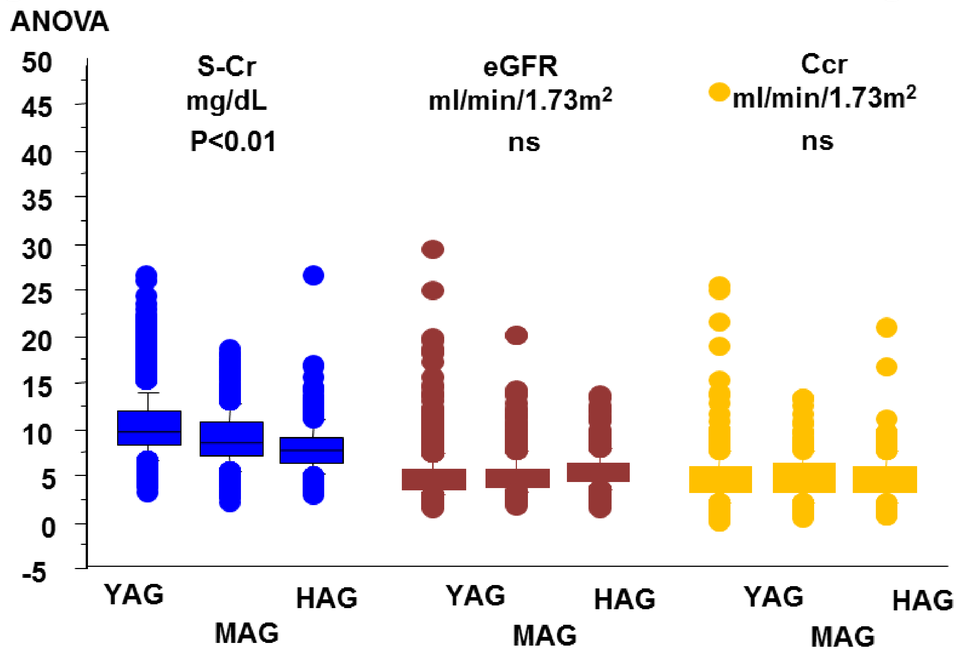


Table 2 The comparative data between three age groups

		YAG	MAG	HAG	p
S-Cr	mg/dL	11 ± 4	9 ± 3	8 ± 3	<.0001
eGFR	ml/min/1.73m2	5 ± 3	5 ± 2	6 ± 2	0.7624
Ccr	ml/min/1.73m2	5 ± 3	5 ± 2	5 ± 3	0.9709

Table 3 The comparison of clinical finding of over volume

P=0.0043

number (%)	YAG	MAG	HAG
Over volume (-)	297 16.%	118 6.4%	78 4.2%
Over volume (+)	693 37.80%	366 20.0%	278 15.1%

Over volume: volume findings that the charged doctors arbitararily determined. edema, pleural effusion, dyspnea of effort and other over volume sings and symptoms.

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Biographic and disclosure information

Shinichi Nishi :
speaker of Chugai Pharmaceutical company and Kyowa-Hakko Kirin Pharmaceutical company