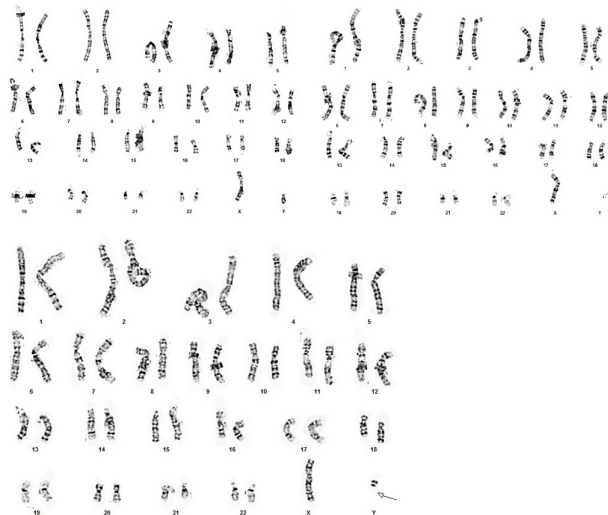


45X/46XY mosaicism presenting with infertility in male

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A 32-year-old man had been referred to endocrinology from urology with infertility. He had been married for a year but had no baby. The patient's height was 156.3cm and his weight was 43kg. On physical examination he had no deformity. And cognitive function was normal. He had normal male external genitalia, normal pubic hair, but his testes and penis were relatively small. In scrotal ultrasonography, both testicular margin and vascularity were within normal range, however, both testicular sizes were small. Semen analysis showed azospermia. Laboratory analysis demonstrated that ACTH, cortisol, TSH, free T4, T3 were within normal range. Testosterone were within normal range as well, but LH(16.21mIU/ml), FSH(48.22mIU/ml), prolactin(43.84ng/ml) were elevated. In MRI sella, there was no pituitary adenoma and only small Rathke's cleft cyst in anterior gland. In the echocardiogram, the normal cardiac function was confirmed and there was no other cardiac anomaly. On the abdomen CT, there were hypoplasia of testes, volume reduction of both prostate gland, and agenesis of the right seminal vesicle. There was no other structure, such as the ovary and uterus. Testicular failure was suspected with decreased testes' volume and elevated FSH, so genetic testing was performed. Cytogenetic analysis of peripheral blood revealed karyotype, 45,X-Y[9]/46,X,del(Y)(q11.23)[9]/46XY[2]. And then, we performed FISH study additionally. 51% (255/500) of gene had not Y-specific sign. Therefore, the diagnosis of 45,X/46,XY mosaicism(X 51%, XY 49%) was confirmed and there were no other mutations in the FISH study. The patient had been under continuous observation in urology with human chorionic gonadotropin and has been considered androgen injection. The patients with 45,X/46,XY mosaicism patient may phenotypically appear as virilized females or males with hypospadias. In addition, most patients with mosaicism have accompanying deformities such as coarctation of aorta. Therefore, most of the patients are identified before puberty. Rarely, the patients with mosaicism might come into the hospital by infertility like present case. Thus, genetic test is necessary for inexplicable infertility.



The comparison of glycemic profiles during post-op early period between LT and KT assessed by CGMS

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Background/Aims: Newly developed hyperglycemia and worsening of previously well controlled glucose control are common after transplantation because of stressful condition and immunosuppressive agents including of high or medium dose glucocorticoid. However, there is no data to show the degree of glucose fluctuation exactly after transplantation according to the transplanted organ during postoperative period in non-diabetic or preexisting diabetic patients. The aim of this study was to investigate the glucose profiles and compare this pattern between liver and kidney transplantation patients during early post-operative period using continuous glucose monitoring system CGMS. **Methods:** We conducted a retrospective, observational study to characterize the pattern of glucose profiles of transplanted patients who underwent liver or kidney transplantation from Sep. 2017 to May. 2018 at our hospital. CGMS data of 26 patients were analyzed in this study and 7 patients with liver transplantation (LT) and 19 patients with kidney transplantation (KT) were compared. LT patients included just 1 pre-existing diabetic patient and 3 preexisting diabetic patients were included in KT patients. **Results:** The occurrence of PTDM was 42.1% (8/19) in KT patients and 7% (1/7) in LT patients at this early point after transplantation. Glycemic control state and glycemic variability of non-diabetic patients after LT were better than KT patients in MAGE ADDR, and MAG as shown in table 1. **Conclusions:** Our data shows CGMS is beneficial and sensitive to detect PTDM in the period that HbA1c is not exact or 75g OGTT is inadequate to perform after transplantation. In addition, our data indicates that PTDM occurrence is lower and glucose fluctuation is less severe in LT patients compared with KT patients Therefore, we suggest that transplanted organ also needs to be considered as one of important factors for glucose control and occurrence of PTDM in the transplanted patients.

	KT patient	LT patient	P value
Mean	144.08±20.83	141.02±17.73	P>0.05
SD	38.49±12.55	36.11±19.68	P>0.05
CONGA	132.07±19.18	41.38±13.72	P>0.05
JINDEX	11121.38±3960.25	11620.37±3762.50	P>0.05
HBGI	351.23±31.29	363.11±26.88	P>0.05
MODD	18.72±4.93	17.33±10.81	P>0.05
MAGE	91.18±36.51	71.66±38.55	P<0.05
ADDR	465.04±65.91	439.30±63.55	P<0.05
MVALUE	2340.57±320.17	2455.45±274.06	P>0.05
MAG	24.62±8.78	20.18±8.07	P<0.05