Supplementary Sheet1: Clinical history sheet for all 50 recruited hypospermatogenesis patients.

S.N.	Recruitment DBN	Age (Years)	Duration of infertility (Years)	BMI (Kg/m^2)	FSH (mIU/mL)	LH (mIU/mL)	Testosterone (ng/mL)	Semen analysis report	XY-FISH	Yq microdeletion
1	3	31	6	23.7	15.56	8.97	3.87	2.5 mL Azoospermia, Fructose positive, Alkaline	N	AZF-C microdeletion
2	11	29	4	29.9	2.59	4.33	6.13	1.7 mL Azoospermia, Fructose positive, Alkaline	N	N
3	13	32	5	20.5	5.06	3.81	2.72	3 mL Azoospermia, Fructose positive, Alkaline	N	N
4	15	35	7	18.5	20.92	10.05	1.88	2.5 mL Azoospermia, Fructose positive, Alkaline	KS	Excluded
5	25	28	3	24.2	7.59	4.37	5	3.5 mLAzoospermia, Fructose positive, Alkaline	N	N
6	33	41	18	26.7	24.67	11.88	4.82	2.5 mL Oligozoospermia, Fructose positive, alkaline	N	N
7	35	22	2	23.8	4.5	5.8	2.2	1.8 mL Azoospermia, Fructose positive, Alkaline	N	N
8	38	34	6	20.9	4.83	6.63	2.65	4.6 mL, Azoospermia, Fructose positive, Alkaline	N	N
9	45	26	4	21.8	3.52	2.73	3.6	4.8 mL, Azoospermia, Fructose positive, Alkaline	N	N
10	59	31	4	27.4	4.38	4.48	4.88	5 mL, Azoospermia, Fructose positive, Alkaline	N	N
11	65	30	9	30.5	12.4	3.45	4.43	3.6 mL, Azoospermia, Fructose positive, Alkaline	N	AZF-C microdeletion
12	66	32	6	39.8	5.7	4.12	23.6	1.8 mL Azoospermia, Fructose positive, Alkaline	N	N

(Contd...)

Supplementary Sheet1: *(continued)*

S.N.	Recruitment DBN	Age (Years)	Duration of infertility (Years)	BMI (Kg/m^2)	FSH (mIU/mL)	LH (mIU/mL)	Testosterone (ng/mL)	Semen analysis report	XY-FISH	Yq microdeletion
13	67	28	5	27.5	5.05	7.02	2.4	4 mL Azoospermia, Fructose positive, Alkaline	N	N
14	72	34	6	20.2	7.59	4.37	5	4.5 mL Oligozoospermia, Fructose positive, alkaline	N	N
15	74	27	5	22	11.87	9.89	3.26	2 mL, Azoospermia, Fructose positive, Alkaline	N	N
16	80	38	4	25.7	15.09	6.57	2.95	2 mL Azoospermia, Fructose positive, Alkaline	KS	Excluded
17	86	27	3	23.4	28.95	6.63	2.65	2.8 mL, Azoospermia, Fructose positive, Alkaline	N	N
18	87	35	8	21.6	40	1.57	4.2	1.2 mL, Azoospermia, Fructose positive, Alkaline	N	N
19	88	34	7	22.7	4.87	7.5	4.88	2.5 mL, Azoospermia, Fructose positive, Alkaline	N	N
20	91	28	6	22	6.79	4.1	3.2	Azoospermia, Fructose positive, Alkaline	N	N
21	104	28	8	22.7	12.65	2.09	3.7	4.2 mL, Azoospermia, Fructose positive, Alkaline	N	AZF-A microdeletion
22	107	32	4	23.4	5.29	4.23	4.74	2 mL, Azoospermia, Fructose positive, Alkaline	N	N
23	111	37	8	25.3	3.7	6.08	4.77	5 mL, Azoospermia, Fructose positive, Alkaline	N	N
24	114	30	4	33.3	19.69	5.35	3.64	2.1 mL, Azoospermia, Fructose positive, Alkaline	N	N

(Contd...)

Supplementary Sheet1: *(continued)*

S.N.	Recruitment DBN	Age (Years)	Duration of infertility (Years)	BMI (Kg/m^2)	FSH (mIU/mL)	LH (mIU/mL)	Testosterone (ng/mL)	Semen analysis report	XY-FISH	Yq microdeletion
25	115	27	5	25.4	3.02	5.71	6.01	2 mL, Azoospermia, Fructose positive, Alkaline	N	N
26	116	27	2	22.8	3.39	4.45	7	4 mL, Azoospermia, Fructose positive, Alkaline	N	N
27	123	27	3	25.3	6.8	6.8	4.56	2 mL Azoospermia, Fructose positive, Alkaline	N	N
28	137	34	2	25.7	10.48	2.67	4.2	3.5 mL Azoospermia, Fructose positive, Alkaline	N	N
29	139	32	2	33.7	4.73	7.5	4.56	2.8 mL Ologozoospermia, Fructose positive, alkaline	N	N
30	140	28	3	33.3	14.5	5.91	5.86	3.4 mL Azoospermia, Fructose positive, Alkaline	N	N
31	143	32	7	23.4	19.34	4.75	5.87	3.5 mL Azoospermia, Fructose positive, Alkaline	N	AZF-C microdeletion
32	145	27	3	24.2	5.89	5.91	5.86	2.8 mL Azoospermia, Fructose positive, Alkaline	N	N
33	146	25	5	19.7	5.5	4.75	4.75	1.5 ml Azoospermia, Fructose positive, Alkaline	N	N
34	148	30	4	22.2	10.91	8.27	5.48	1.8 mL Azoospermia, Fructose positive, Alkaline	N	N
35	159	24	2	27.8	12.18	6.1	6.04	1.9 mL Azoospermia, Fructose positive, Alkaline	N	N
36	166	32	6	21.8	3.4	4.4	6.8	2.4 mLAzoospermia, Fructose positive, Alkaline	N	N

(Contd...)

Supplementary Sheet1: *(continued)*

S.N.	Recruitment DBN	Age (Years)	Duration of infertility (Years)	BMI (Kg/m^2)	FSH (mIU/mL)	LH (mIU/mL)	Testosterone (ng/mL)	Semen analysis report	XY-FISH	Yq microdeletion
37	174	31	4	23.4	12	4.8	6.3	4 mL Azoospermia, Fructose positive, Alkaline	N	N
38	175	28	4	26.7	6.8	3.45	3.26	4.5 mL Azoospermia, Fructose positive, Alkaline	N	N
39	177	32	5	20.1	2.3	5	2.49	3.5 mL Azoospermia, Fructose positive, Alkaline	N	N
40	178	24	3	27.8	27.9	7.28	2.4	2.8 mL Azoospermia, Fructose positive, Alkaline	KS	Excluded
41	185	30	6	24.9	18.71	4.54	4.21	1.5 mL Oligozoospermia, Fructose positive, alkaline	N	N
42	187	38	8	24.2	3.08	6.52	2.81	2.5 mL Azoospermia, Fructose positive, Alkaline	N	N
43	190	35	7	25.5	20.92	10.05	1.88	3.5 mL Azoospermia, Fructose positive, Alkaline	KS	Excluded
44	192	35	6	22.8	4.1	4.77	8.9	2.4 mL Azoospermia, Fructose positive, Alkaline	N	N
45	203	32	4	24.2	5.06	3.81	2.72	2.5 mL Azoospermia, Fructose positive, Alkaline	N	N
46	205	26	3	25.5	7.74	2.67	6.46	4.5 ml Azoospermia, Fructose positive, Alkaline	N	N
47	210	28	3	21.3	9.88	9.08	5.36	3.4 mL Azoospermia, Fructose positive, Alkaline	N	N
48	211	28	5	23.5	8.43	2.03	3.35	3.5 mL Oligozoospermia, Fructose positive, alkaline	N	N

(Contd...)

Supplementary Sheet1: *(continued)*

S.N.	Recruitment DBN	Age (Years)	Duration of infertility (Years)	BMI (Kg/m^2)	FSH (mIU/mL)	LH (mIU/mL)	Testosterone (ng/mL)	Semen analysis report	XY-FISH	Yq microdeletion
49	218	36	7	34.5	8.6	2.25	13.1	3.2 mL Azoospermia, Fructose positive, Alkaline	N	N
50	223	31	4	24.4	6.4	5.36	19.4	2.5 mL Azoospermia, Fructose positive, Alkaline	XX male	Excluded
51	225	27	2	26.4	10.7	4.7	5.53	1.8 mL Azoospermia, Fructose positive, Alkaline	N	N

Highlited: Small RNA sequencing performed, N: No abnormality detected, KS: Klinefelter syndrome, DBN: Database number, BMI: Body mass-index, FSH: Follicle stimulating hormone, LH: Luteinizing hormone, XY-FISH: Fluorescence in Situ Hybridization for copy number on X and Y chromosome, AZF-C: Azoospermia factor C, AZF-A: Azoospemia factor A