

Supplemental Table 1. Comparison of demographic characteristics for children with and without a phimosis diagnosis, Limpopo, South Africa.

	Phimosis (n=291) N (%)	No phimosis (n=68) N (%)	p _{diff}
Maternal age (years)			
<25	148 (50.9)	37 (54.4)	
25-35	120 (41.2)	21 (30.9)	
>35	23 (7.9)	10 (14.7)	0.11
Maternal BMI (post-delivery)			
Normal (<25)	113 (38.8)	26 (38.2)	
Overweight (25-29.9)	105 (36.1)	19 (27.9)	
Obese (≥30)	73 (25.1)	23 (33.8)	0.27
Maternal education			
<12th grade	162 (55.7)	37 (54.4)	
Grade 12	86 (29.6)	21 (30.9)	
Further studies started	20 (6.9)	4 (5.9)	
Diploma/further	23 (7.9)	6 (8.8)	0.98
Marital status			
Married or living as married	133 (45.7)	28 (41.2)	
Not married or living as married	158 (54.3)	40 (58.8)	0.50
Maternal hypertension			
No	252 (86.6)	62 (91.2)	
Yes	39 (13.4)	6 (8.8)	0.31
Maternal HIV status^a			
Negative	249 (85.9)	56 (82.4)	

Positive	41 (14.4)	12 (17.7)	0.46
Previous parity			
0	122 (41.9)	36 (52.9)	
1	91 (31.3)	12 (17.7)	
2 or more	78 (26.8)	20 (29.4)	0.07
Low birthweight (<2500g)			
No	276 (94.9)	63 (92.7)	
Yes	15 (5.2)	5 (7.4)	0.48
Preterm delivery (<37 weeks gestation)			
No	254 (87.3)	61 (89.7)	
Yes	37 (12.7)	7 (10.3)	0.58
Mother worked during pregnancy			
No	221 (76.0)	47 (69.1)	
Yes	70 (24.1)	21 (30.9)	0.24
Pesticides observed on homestead ^a			
No	183 (62.9)	39 (58.2)	
Yes	108 (37.1)	28 (41.8)	0.48

^aNumbers do not add to total due to 1 missing value

Supplemental Table 2. Maternal serum concentrations of *p,p'*- and *o,p'*-DDT and DDE (ng/g, lipid-adjusted), and maternal urinary concentrations of pyrethroid metabolites (ug/L, specific-gravity adjusted) for all participants (n=359); VHEMBE study, Limpopo, South Africa

Exposure	n	% Detected ^a	% Quantifiable ^b	GM	± GSD	Min	Percentile					Max
							10	25	50	75	90	
<i>p,p'</i> -DDT	359	97.5	89.1	69.0	± 6.64	<LOD	6.776	16.3	43.69	223.5	854.35	13698.3
<i>p,p'</i> -DDE	359	100	97.2	286.2	± 4.82	4.463	39.89	80.94	207.7	819.8	2340.1	19518.8
<i>o,p'</i> -DDT	359	88.3	41.0	8.9	± 4.67	<LOD	<LOD	3.153	6.412	20.47	71.986	892.81
<i>o,p'</i> -DDE	359	83.0	15.6	4.1	± 2.76	<LOD	<LOD	2.39	4.163	6.631	12.29	83.59
<i>cis</i> -DBCA	357	100	99.2	0.360	± 2.95	0.017	0.084	0.171	0.347	0.726	1.463	9.599
<i>cis</i> -DCCA	357	100	100	0.476	± 2.58	0.063	0.151	0.254	0.451	0.774	1.419	209.488
<i>trans</i> -DCCA	357	100	99.4	0.560	± 3.14	0.037	0.146	0.263	0.504	1.043	2.346	268.945
3-PBA	357	100	100	1.146	± 2.42	0.104	0.404	0.688	1.067	1.840	3.178	102.383
4-F-3-PBA	344	11.6	7.6	N/A		<LOD	<LOD	<LOD	<LOD	<LOD	0.017	0.518

GM: geometric mean; GSD: geometric standard deviation.

^aDetection limits are 0.01 ng/g wet weight for *p,p'*-DDT, *o,p'*-DDT, and *o,p'*-DDE; 0.03 ng/g for *p,p'*-DDE; and 0.0025 ug/L for *cis*-DBCA, 0.0045 ug/L for *cis*-DCCA, 0.0038 ug/L for *trans*-DCCA, 0.0047 ug/L for 3-PBA, and 0.005 ug/L for 4-F-3 PBA.

^bQuantification limits are 0.05 ng/g wet weight for *p,p'*-DDT, *o,p'*-DDT, and *o,p'*-DDE; and 0.15 ng/g for *p,p'*-DDE; 0.0082 ug/L for *cis*-DBCA, 0.015 ug/L for *cis*-DCCA, 0.013 ug/L for *trans*-DCCA, 0.016 ug/L for 3-PBA, and 0.011 ug/L for 4-F-3 PBA.

Supplemental Table 3. Adjusted Relative Risks and 95% confidence interval (CI) for the association between maternal urinary pyrethroid metabolite concentrations (specific gravity-adjusted) collected before delivery only with the risk of hypospadias in 1 year-old boys without a determination of phimosis including those with a determination of phimosis, VHEMBE study, Limpopo, South Africa (n=43).

Exposure	RR (95% CI)
<i>cis</i> -DBCA	0.62 (0.31, 1.24)
<i>cis</i> -DCCA	1.66 (1.13, 2.46)*
<i>trans</i> -DCCA	1.59 (1.05, 2.40)*
3-PBA	1.59 (0.76, 3.31)

Relative risks show the change in the risk of hypospadias associated with a 10-fold increase in maternal urinary pyrethroid metabolite concentrations. Models adjusted for maternal BMI category.

*p<0.05