

Search strategy

This systematic review was reported in accordance with the indications of the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) Statement 2015 for the redaction of systematic reviews [1]. The MEDLINE (PubMed) search engine was used to conduct a search with the following query: (schistosomiasis[Title/Abstract] OR schistosoma[Title/Abstract] OR bilharziosis[Title/Abstract] OR bilharzia[Title/Abstract] OR bilharziasis[Title/Abstract] OR haematobium[Title/Abstract]) AND ((uropathy[Title/Abstract] OR hydronephrosis[Title/Abstract] OR hydroureteronephrosis[Title/Abstract] OR obstructive uropathy[Title/Abstract] OR renal impairment[Title/Abstract] OR renal failure[Title/Abstract] OR erectile dysfunction [Title/Abstract] OR kidney failure[Title/Abstract] OR urolithiasis[Title/Abstract] OR lithiasis[Title/Abstract] OR abortion[Title/Abstract] OR obstetric complications [Title/Abstract] OR ectopic pregnancy[Title/Abstract] OR infertility[Title/Abstract] OR sandy patches[Title/Abstract] OR cancer[Title/Abstract] OR tumor[Title/Abstract] OR neoplasm[Title/Abstract] OR ultrasonography[Title/Abstract] OR ultrasound[Title/Abstract] OR echography[Title/Abstract] OR ct scan[Title/Abstract] OR computed tomography[Title/Abstract] OR computer urography[Title/Abstract] OR magnetic resonance imaging[Title/Abstract] OR MRI[Title/Abstract] OR surgery[Title/Abstract] OR surgical[Title/Abstract] OR biopsy[Title/Abstract] OR resection[Title/Abstract] OR nephrectomy[Title/Abstract] OR stenting[Title/Abstract] OR stent[Title/Abstract] OR cystectomy [Title/Abstract] OR cystoscopy[Title/Abstract] OR cystourethroscopy[Title/Abstract] OR Colposcopy[Title/Abstract] OR colposcopic*[Title/Abstract] OR dialysis[Title/Abstract] OR chemotherapy[Title/Abstract])).

Articles were only included if published between January 1st 1990 and January 23rd 2021, which was the date of the last database search, based on the assumption that older therapies and diagnostic means would be still used in the last decades, if effective.

Supplementary table 1 Studies regarding the diagnosis of UO in cUGS patients. Age refers to the whole cohort studied in the article (not just the complicated patients) when in italic.

Ref.	Author	Year of publication	Publishing country	Country of infection	Study type	Patient type	Sex Age	Diagnostic mean	Gold standard or comparator	n
[2]	Abdel-Wahab MF	1992	Egypt	Egypt	Transversal study	Endemic area residents	m/f <i>range: [12-16]</i>	Egg count	Ultrasound	422
[3]	Abdel-Wahab MF	1992	Egypt	Egypt	Transversal study	Endemic area residents	m/f mean [range]: 43.6 [15-62] (OU)	Ultrasound	Endovenous urography	30
[4]	Antwi S	2014	Ghana	Ghana	Case series	Endemic area residents	m/f 7; 11; 12; 12; 12	Ultrasound	Surgery Anterograde urography Endovenous urography	5 2 1 1
[5]	Badmos KB	2009	Nigeria	Nigeria	Case report	Endemic area residents	m 25	Ultrasound	Endovenous urography	1 1
[6]	Bakari AA	2012	Nigeria	Nigeria	Case report	Endemic area residents	m 17	Ultrasound	Endovenous urography	1 1
[7]	Bocanegra García C	2018	Angola	Angola	Cross-sectional study	Endemic area residents	m/f <i>mean ± SD: 8.7 ± 3.2</i>	Ultrasound		3
[8]	Brouwer KC	2003	Zimbabwe	Zimbabwe	Transversal study	Endemic area residents	m/f <i>range: [9-16]</i>	Parasite genetic profiling	Ultrasound	25
[9]	Brouwer KC	2003	Zimbabwe	Zimbabwe	Transversal study	Endemic area residents	m/f <i>range: [9-16]</i>	Ultrasound		67
[10]	Dabo A	1995	Mali	Mali	Transversal study	Endemic area residents	m/f <i>range: [6-15]</i>	Ultrasound		307
[11]	Fataar S	1990	Kuwait	Kuwait	Transversal study	Endemic area residents	m mean [range]: 30 [21-46]	CT scan		10
[12]	Garba A	1999	Burkina Faso	Burkina Faso	Transversal study	Endemic area residents	m/f <i>range: [7-15]</i>	Ultrasound		390
[13]	Ibrahim AI	1991	Saudi Arabia	Saudi Arabia	Transversal study	Endemic area residents	m/f mean [range]: 34.6 [18-64]	Micturating cystourethrogram	Endovenous urography	47
[14]	Kazmi Z	2020	Pakistan	East Africa	Case report	Travelers	m 24	CT scan	Retrograde urography	1
[15]	Lorca J	2019	Spain	Myanmar	Case report	Travelers	f 34	Ultrasound Uro-CT Isotope renogram	Biopsy Biopsy Biopsy	1 1 1
[16]	Mandong BM	2005	Nigeria	Nigeria	Retrospective study	Endemic area residents	m/f [7-40]	Surgery		2

[17] Olajide AO	2012	Nigeria	Nigeria	Case report	Endemic area residents	m	23	Ultrasound	Surgery	1
								Endovenous urography	Surgery	1
[18] Oranusi CK	2011	Nigeria	Nigeria	Case report	Endemic area residents	m	33	Ultrasound	Surgery	1
								Endovenous urography	Surgery	1
[19] Pal PO	2017	UK	Zimbabwe	Case report	Migrants	m	41	CT scan	Ureteroscopy	1
								Retrograde urography	Ureteroscopy	1
								Isotope renogram	Surgery	1
[20] Pallangyo P	2020	Tanzania	Tanzania	Case report	Endemic area residents	m	38	Clinical examination (palpable kidney)		1
								Uro-CT		1
								Urine filtration		1
								Rectal biopsy		1
[21] Pieras Ayala E	2000	Spain	North Africa	Case series	Migrants	m	24	Anterograde urography	Surgery	1
[22] Pollock GR	2020	USA	Somalia	Case report	Migrants	m	57	CT scan		1
[23] Rasendramino MH	1998	Madagascar	Madagascar	Transversal study	Endemic area residents	m/f	unspecified	Ultrasound		436
[24] Remppis J	2020	Gabon	Gabon	Transversal study	Endemic area residents	m/f	unspecified	Ultrasound (clinician)	Ultrasound (radiologist)	110
								Ultrasound (student)	Ultrasound (radiologist)	104
[25] Richter J	1996	Ghana	Ghana	Transversal study	Endemic area residents	m/f	median [range]: 14 [6-61]	Ultrasound		5
[26] Salah MA	2000	Yemen	Yemen	Transversal study	Endemic area residents	m/f	mean [range]: 3.7 [0-14]	Ultrasound		158
[27] Salas-Coronas J	2013	Spain	Africa	Retrospective study	Migrants	m/f	mean [range]: 26.7 [15-48]	Ultrasound		2
[28] Salas-Coronas J	2020	Spain	Africa	Retrospective study	Migrants	m	23; 30; 31; 32; 33; 37; 46	Ultrasound		5
[29] Serieye J	1996	Madagascar	Madagascar	Transversal study	Endemic area residents	m/f	>5	Ultrasound		574
[30] Srougi V	2017	Brazil	Central Africa	Case report	Migrants	m	~35	CT scan		1
[31] Vancauwenberghe T	2013	Belgium	Malawi	Case report	Travelers	f	66	CT scan	Surgery	1
								Ureteroscopy	Surgery	
[32] Vester U	1997	Mali	Mali	Transversal study	Endemic area residents	m/f	>2	Ultrasound		532

Supplementary table 2 Studies regarding the diagnosis of cUGS with bladder cancer. Age refers to the whole cohort studied in the article (not just the complicated patients) when in italic.

Ref. Author	Year of publication	Study country	Country of infection	Study type	Patient type	Sex	Age	Diagnostic mean	Gold standard or comparator	n
[33]Abdel Mohsen MA	1999	Egypt	Egypt	Transversal study	Endemic area residents	m	mean \pm SD: 54 \pm 10	Urinary nitrate	Biopsy	61
								Urinary nitrite	Biopsy	61
								Urinary apparent total N-nitroso compounds	Biopsy	61
								Urinary N-nitrosodimethylamine	Biopsy	61
								Urinary N-nitrosopiperidine	Biopsy	61
								Urinary N-nitrosopyrrolidine	Biopsy	61
								Urinary N-nitrosodibutylamine	Biopsy	61
[3] Abdel-Wahab MF	1992	Egypt	Egypt	Transversal study	Endemic area residents	m/f	mean [range]: 60.4 [49-76]	Ultrasound	Endovenous urography	30
[34]Ahmed NS	2017	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>range: [20-60]</i>	Biopsy		11
[35]Ahmed SA	1996	Egypt	Egypt	Transversal study	Endemic area residents	unspecified	unspecified	Serum LDH	Biopsy	63
								Serum aminoacidic pattern	Biopsy	69
[36]Akinwale OP	2008	Nigeria	Nigeria	Transversal study	Endemic area residents	m/f	<i>mean [range]: 47.5 [40-70]</i>	Urine cytology		32
[37]Al-Samawi AS	2013	Yemen	Yemen	Transversal study	Endemic area residents	m/f	<i>mean [range]: 57.6 [12-95]</i>	Biopsy		31
[38]Alvarez Kindelan J	1999	Spain	Senegal	Case report	Migrants	m	40	Urine filtration	Biopsy	1
								Urography CT scan	Biopsy Surgery	1 1
[39]Amin HAA	2019	Egypt	Egypt	Transversal study	Endemic area residents	m/f	<i>mean [range]: 61.6 [20-78]</i>	Biopsy		27
[40]Bedwani R	1998	Egypt	Egypt	Case-control study	Endemic area residents	m/f	<i>median [range]: 59 [21-74]</i>	Biopsy		86
[41]Darré T	2015	Togo	Togo	Retrospective study	Endemic area residents	unspecified	unspecified	Biopsy or surgery		54
[42]Eissa S	2017	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	unspecified	Urinary ATG12	Biopsy	66
								Urinary FYCO1	Biopsy	66
								Urinary ULK1	Biopsy	66
								Urinary TECPR	Biopsy	66
[43]Eissa S	2015	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	unspecified	Urinary miRNA-210	Biopsy	58
								Urinary miRNA-96	Biopsy	58
								Urinary lncRNA-UCA1	Biopsy	58
								Hyaluronidase mRNA in urine	Biopsy	58
[44]Eissa S	2007	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean \pm SD [range]: 57 \pm 12 [25-82]</i>	Urinary MMP-2	Biopsy	224

								Urinary MMP-9	Biopsy	224
								Urinary TIMP-2	Biopsy	224
								Urinary MMP-2/TIMP-2	Biopsy	224
								Urinary MMP-9/TIMP-2	Biopsy	224
[45]Eissa S	2013	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 60.1 ± 11.8 [26-83]</i>	Urinary survivin	Biopsy	100
								Hyaluronidase mRNA in urine	Biopsy	100
[46]Eissa S	2015	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 58.8 ± 11.6 [28-85]</i>	Urinary miRNA-96	Biopsy	47
[47]Eissa S	2005	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 58.0 ± 10.2 [35-82]</i>	Hyaluronidase mRNA in urine	Biopsy	274
								Urinary CK-20 mRNA	Biopsy	274
[48]Eissa S	2004	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 55.9 ± 8.8 [40-78]</i>	Urinary CK-20 mRNA	Biopsy	131
								Urinary angiogenin	Biopsy	131
[49]Eissa S	2003	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	<i>mean [range]: 58 [30-48]</i>	Telomerase activity in urine	Biopsy	100
								Urinary MMP-9	Biopsy	95
[50]Eissa S	2015	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 61.8 ± 8.2 [40-80]</i>	Urinary lncRNA-UCA1	Biopsy	56
[51]Eissa S	2015	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	unspecified	Urinary miRNA-210	Biopsy	96
								Urinary miRNA-10b	Biopsy	96
								Urinary miRNA-29c	Biopsy	96
[52]Eissa S	2014	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 52 ± 10 [25-79]</i>	Urinary HURP mRNA	Biopsy	151
[53]Eissa S	2013	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 58.1 ± 10.2 [42-78]</i>	Urinary hTERT mRNA	Biopsy	105
								Urinary scatter factor	Biopsy	105
[54]Eissa S	2007	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean ± SD [range]: 57.8 ± 10 [36-78]</i>	Telomerase activity in urine	Biopsy	243
								Urinary telomerase mRNA	Biopsy	243
								Urinary hTERT mRNA	Biopsy	243
[55]Eissa S	2002	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	<i>mean [range]: 56.5 [30-76]</i>	Urinary NMP22	Biopsy	215
								Urinary fibronectin	Biopsy	215
								Urinary UBC	Biopsy	215
[56]Eissa S	2008	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	<i>mean ± SD [range]: 56.6 ± 9.6 [36-80]</i>	Urinary CD44	Biopsy	156
								Urinary CK-20 mRNA	Biopsy	156
[57]el-Ahmady O	1999	Egypt	Egypt	Transversal study	Endemic area residents	m/f	<i>range: [35-78]</i>	Urinary CYFRA21-1	Biopsy	270
[58]El-Sharkawi F	2014	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	<i>mean [range]: 62.8 [38-84]</i>	Urinary MMP-9	Biopsy	82
								Urinary MMP-3	Biopsy	82
[11]Fataar S	1990	Kuwait	Kuwait	Transversal study	Endemic area residents	m	<i>mean [range]: 30 [21-46]</i>	CT scan		10
[59]Gaber DA	2020	Egypt	Egypt	Transversal	Endemic area	m/f	<i>mean ± SD [range]: 61 ± 10</i>	Sha-miR-71a gene in urine	IHA	50

				study	residents		[44-75]				
								Urinary MAPK3	IHA	85	
								Urinary MAPK3 mRNA	IHA	85	
[60]	Gaye AM	2016	Senegal	Senegal	Retrospective study	Endemic area residents	unspecified	unspecified	Biopsy or surgery	31	
[61]	Groeneveld AE	1996	Burkina Faso	Burkina Faso	Retrospective study	Endemic area residents	m/f	mean: 62.1	Biopsy	197	
[62]	Ketabchi A	2012	Iran	Iran	Case report	Travelers	m	60	Ultrasound	Biopsy	1
[63]	Khaled HM	2001	Egypt	Egypt	Transversal study	Endemic area residents	unspecified	mean [range]: 57 [26-85]	BTA stat test	Biopsy	85
								BTA TRAK assay	Biopsy	85	
[64]	Lodhia J	2020	Tanzania	Tanzania	Case series	Endemic area residents	f	53	Ultrasound	Biopsy	1
[65]	Marbjerg LH	2015	Denmark	Mozambique	Case report	Migrants	f	40	CT scan	Biopsy	1
								CT scan-PET	Biopsy	1	
[66]	Martin JW	2018	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	mean [range]: 54 [20-87]	Surgery	802	
[67]	Mina SN	2015	Egypt	Egypt	Case report	Endemic area residents	m	80	Cystoscopy	TURB	1
								CT scan	TURB	1	
[68]	Mohammed MA	2013	Egypt	Egypt	Retrospective study	Endemic area residents	m/f	mean ± SD: 54 ± 8	Urinary MMP-2	Biopsy	166
								Urinary MMP-9	Biopsy	166	
								Urinary MMP-9/NGAL	Biopsy	166	
								MMP-9 dimers in urine	Biopsy	166	
								Urinary MMP-9/TIMP	Biopsy	166	
								Urinary ADAMTS-7	Biopsy	166	
[69]	Mourad WA	1998	Saudi Arabia	Saudi Arabia	Case report	Endemic area residents	m	52	Cystoscopy	Biopsy	1
								CT scan	Biopsy	1	
[70]	Mungadi IA	2007	Nigeria	Nigeria	Retrospective study	Endemic area residents	m/f	mean [range]: 46.0 [20-82]	Biopsy	16	
[71]	Saied GM	2007	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	unspecified	Urinary CEA	Surgery	32
								Serum CEA	Surgery	32	
[72]	Santos J	2015	Angola	Angola	Transversal study	Endemic area residents	m/f	median [range]: 41 [3-75]	Ultrasound	Cystoscopy	80
[30]	Srougi V	2017	Brazil	Central Africa	Case report	Migrants	m	~35	CT scan	Biopsy	1
[73]	Vieira P	2007	Portugal	Mozambique	Case series	Expatriates	m	60	Biopsy	1	
								Urine filtration	1	1	
[74]	Yang H	2005	Egypt	Egypt	Retrospective study	Endemic area residents	unspecified	unspecified	Serum HPV-16 DNA	Biopsy	27
								Urinary HPV-16 DNA	Biopsy	24	

Supplementary Table 3 Studies regarding the diagnosis of cUGS with infertility and ectopic pregnancy. ^a haematuria and/or ultrasound and/or urine filtration. Age refers to the whole cohort studied in the article (not just the complicated patients) when in italic.

Ectopic pregnancy										
Ref.	Author	Year of publication	Publishing country	Country of infection	Study type	Patient type	Age	Diagnostic mean	Gold standard or comparator	n
[75]	Bahrami S	2006	USA	East Africa	Case report	Migrants	20	β -hCG	Surgery	1
								Ultrasound	Surgery	1
								Urine filtration	Surgery	1
[76]	Bugalho A	1991	Mozambique	Mozambique	Case series	Endemic area residents	21; 22; 28; 33	Surgery		4
[77]	Ekoukou D	1995	France	Mali	Case series	Migrants	29	β -hCG Ultrasound	Surgery Surgery	1 1
[78]	Eogan M	2002	Ireland	Nigeria	Case report	Migrants	31	Ultrasound	Surgery	1
[79]	Garba M	2004	Niger	Niger	Case report	Endemic area residents	21	Ultrasound	Surgery	1
[80]	Laroche J	2016	France	Mali	Case report	Travelers	26	Ultrasound β -hCG Urine filtration	Surgery	1 1 1
[81]	Laxman VV	2008	UK	Zambia	Case report	Migrants	37	Ultrasound β -hCG		1 1
[82]	Nouhou H	1998	Niger	Niger	Retrospective study	Endemic area residents	mean [range]: 30 [17-70]	Surgery		1
[83]	Odubamowo KH	2014	Nigeria	Nigeria	Case report	Endemic area residents	32	Ultrasound	Surgery	1
[84]	Okonofua FE	1990	Nigeria	Nigeria	Case report	Endemic area residents	34	Surgery		1
[85]	Sahu L	2013	India	unknown	Case report	Travelers	25	β -hCG Ultrasound		1 1
[86]	Schneider D	2000	South Africa	South Africa	Case report	Endemic area residents	35	β -hCG		1
								Ultrasound		1
[87]	Ville Y	1991	Gabon	Gabon	Case series	Endemic area residents	26	β -hCG	Surgery	1
								Ultrasound	Surgery	1

Female infertility

Ref.	Author	Year of publication	Publishing country	Country of infection	Study type	Patient type	Age	Diagnostic mean	Gold standard or comparator	n
[88]	Bailey SL	2011	UK	Malawi	Case series	Travelers	43	Surgery		1
[89]	Balasch J	1995	Spain	Nigeria	Case report	Migrants	26	Hysterosalpingography Ultrasound	Surgery Surgery	1 1
[90]	Darwish AM	1999	Egypt	Egypt	Case series	Endemic area residents	26; 30; 30	Serology	Biopsy	3
[77]	Ekoukou D	1995	France	Mali	Case series	Migrants	29	Urine filtration Hysteroscopy	Biopsy Surgery	3 1
[91]	Jones KD	2003	UK	South Africa	Case report	Travelers	33	Urine filtration	Biopsy	1
[92]	Kjetland EF	1996	Malawi	Malawi	Transversal study	Endemic area residents	<i>median [range]: 22 [15-47]</i>	ELISA Multiple biopsies	Biopsy	1 31
[93]	Kjetland EF	2010	Zimbabwe	Zimbabwe	Transversal study	Endemic area residents	<i>range: [20-49]</i>	Cervical smear		23
[94]	Krolkowski A	1995	South Africa	South Africa	Case report	Endemic area residents	27	Hysterosalpingography	Surgery	1
[95]	Morice P	1993	France	unknown	Case report	Migrants	33	Hysterosalpingography	Surgery	1
[96]	Nayama M	2007	Niger	Niger	Transversal study	Endemic area residents	<i>mean [range]: 26 [15-40]</i>	Cervical smear		42
								Biopsy		26
								Pelvic pain	Various ^a	42
								Leucorrhea	Various ^a	42
								Genital itch	Various ^a	42
								Dyspareunia	Various ^a	42
								Hysterosalpingography		11
[82]	Nouhou H	1998	Niger	Niger	Retrospective study	Endemic area residents	<i>mean [range]: 30 [17-70]</i>	Biopsy		6
[97]	Owusu-Bempah A	2013	Ghana	Ghana	Case report	Endemic area residents	34	Ultrasound Hysterosalpingography	Surgery Surgery	1 1
[98]	Richter J	1995	Malawi	Malawi	Transversal study	Endemic area residents	<i>median [range]: 27 [17-36]</i>	Ultrasound		2
[99]	Santos J	2014	Angola	Angola	Transversal study	Endemic area residents	<i>mean [range]: 25.6 [18-41]</i>	Catechol-estrogens/ DNA adducts in urine	Urine filtration	29
[100]	Schanz A	2010	Germany	Nigeria	Case report	Migrants	30	Ultrasound CT scan	Surgery Surgery	1 1
[101]	Swai B	2006	Mali	Tanzania	Retrospective	Endemic area	<i>median [range]: 34</i>	Biopsy		7

Ref.	Author	Year of publication	Publishing country	Country of infection	Study type	Patient type	Age	Diagnostic mean	Gold standard or comparator	n
[102]	Van Den Broucke S	2020	Belgium	Mali	Case report	Travelers	28	Biopsy		1
								ELISA		1
								IHA		1
								PCR		1
Male infertility										
[103]	Al-Qahtani SM	2010	France	Egypt	Case report	Migrants	31	Ultrasound	Surgery	1
[104]	Kini S	2009	UK	Uganda	Case report	Travelers	unspecified	Ultrasound		1
								Gonadotropins		1
								Testosterone		1

Supplementary Table 4 Case reports regarding cUGS that required a biopsy or an invasive procedure but did not manifest any other complications and responded well to treatment with PZQ.

Ref.	Author	Year of publication	Study country	Country of infection	Patient type	Sex	Age	Lesion	n	Invasive procedure	Diagnostic mean	Positive result?
[105]	Alvarez Maestro M	2010	Spain	Gambia	Migrants	m	21	Bladder mass	1	Biopsy	Ultrasound	Yes
											Endovenous urography	No
[106]	Al-Saeed O	2003	Kuwait	Kuwait	Endemic area residents	m	33; 41; 41; 45	Seminal vesicle mass	4	FNA or biopsy	Ultrasound	Yes
[107]	Aytaç B	2012	Turkey	Central Africa	Travelers	m	37	Bladder mass	1	Biopsy	Ultrasound Urine filtration	Yes Yes
[108]	Azami MA	2018	Morocco	Morocco	Endemic area residents	f	28	Infected ovarian cyst	1	Laparotomy	Ultrasound	Yes
											CT scan Urine filtration	Yes No
[109]	Badmus TA	2012	Nigeria	Nigeria	Endemic area residents	m	16	Testicular mass	1	Orchiectomy	Ultrasound	Yes
[88]	Bailey SL	2011	UK	Malawi	Travelers	f	34	Infected ovarian cyst	1	Surgery	Ultrasound	Yes
[110]	Ballesta Martínez B	2019	Spain	Various African countries	Migrants	m	29	Bladder mass	1	Biopsy	Ultrasound	Yes
											Urine filtration	Yes
[111]	Carrión López P	2010	Spain	Mali	Migrants	m	19	Pseudopolyp	1	Biopsy	Ultrasound Urine filtration	Yes Yes
[112]	Chahdi H	2018	Morocco	Mauritania	Travelers	m	25	Haematuria	1	Biopsy	Urine filtration	Yes
[90]	Darwish AM	1999	Egypt	Egypt	Endemic area residents	f	34	Tubal mass	1	Minilaparotomy	Urine filtration	Yes
											Serology	Yes
[113]	De NV	2019	Vietnam	Angola	Expatriates	m	43	Bladder mass	1	Laparoscopy	Urine filtration PCR of urine	Yes Yes
[114]	Dessyn JF	2016	France	Madagascar	Travelers	f	25	Pseudopolyp	1	Biopsy	Ultrasound Serology	Yes Yes
[115]	Dzeing-Ella A	2009	France	Mali	Travelers	f	34	Cervical dysplasia	1	Biopsy	Urine filtration	Yes
[116]	Efared B	2018	Morocco	Morocco	Endemic area residents	f	51	Ovarian mass	1	Surgery	Surgery	Yes
[117]	Fabiano M	2020	Italy	Africa	Migrants	m	11	Bladder mass	1	Biopsy	Ultrasound	Yes
											CT scan Urine filtration	Yes No
[118]	Fall I	1992	Senegal	Senegal	Endemic area residents	m	9	Testicular mass	1	Orchiectomy	Ultrasound	Yes
[119]	Haghighi L	2020	Iran	Iran	Travelers	m	25	Bladder granulomas	1	Biopsy	Ultrasound	Yes

[120]	Hosny K	2018	UK	Malawi	Travelers	m	65	Bladder granulomas	1 Biopsy	Ultrasound	Yes
										CT scan	Yes
										Urine filtration	Yes
[121]	Kato-Hayashi N	2013	Japan	Mali	Travelers	m	21	Infection not responsive to PZQ	1 Biopsy	Urine filtration	Yes
										Cell-free schistosome DNA	Yes
[122]	Kameh D	2004	USA	South Africa	Migrants	f	37	Female genital schistosomiasis	1 Biopsy	Cervical smear	Yes
										Urine filtration	No
										Stool microscopy	No
[123]	Kohno M	2008	Japan	Africa	Travelers	m	31	Bladder granulomas	1 Biopsy	CT scan	Yes
										MRI	Yes
[94]	Krolikowski A	1995	South Africa	South Africa	Endemic area residents	f	27	Asherman syndrome	1 Laparoscopy	Hysterosalpingography	Yes
[124]	Labairu Huerta L	2007	Spain	Central Africa	Migrants	m	26	Bladder mass	1 Biopsy	Biopsy only	
[125]	Lee Y	2020	South Korea	Kenya or Malawi	Expatriates	f	23	Bladder granulomas	1 Biopsy	CT scan	Yes
										PCR of urine Serology	Yes
											Yes
[126]	López López AI	2007	Spain	Various African countries	Migrants	m	28	Ureteral stenosis	1 Biopsy	Urine filtration	No
										Serology	Yes
										X-rays	Yes
										Ultrasound	No
										Endovenous urography	Yes
[127]	Mascarenhas A	2011	Portugal	Guinea-Bissau	Migrants	m	10	Bladder granulomas	1 Biopsy	Ultrasound	Yes
										Urine filtration	Yes
[128]	Neal PM	2004	USA	Somalia	Migrants	m	32	Hydroureter	1 Biopsy	Endovenous urography	Yes
										Retrograde urography	Yes
										Urine filtration	No
[129]	Oguntunde OA	2020	Nigeria	Nigeria	Endemic area residents	m	9	Testicular mass	1 Surgical exploration	Cystoscopy	Yes
[130]	Pedalino M	2010	Italy	Africa	Travelers	m	34	Bladder granulomas	1 Biopsy	Ultrasound	No
[131]	Pinto SZ	2019	South Africa	South Africa	Endemic area residents	f	10	Pseudopolyp	1 Biopsy	Urine filtration	No
										Ultrasound	Yes
[132]	Rambau PF	2011	Tanzania	Tanzania	Endemic area residents	m	9	Testicular swelling and atrophy	1 Orchiectomy	Urine filtration	No
[133]	Samuel MI	2015	UK	Malawi	Travelers	f	29	Lesion of labia minora	1 Biopsy	Urine filtration	Yes

[134]Scarлата F	2005	Italy	Ghana	Migrants	m	26	Bladder granulomas	1 Biopsy	Urine filtration	Yes
									Stool microscopy	No
									Serology	Yes
[135]Silva IM	2006	Brazil	Mozambique	Travelers	m	median [range]: 29 [26-36]	Infection not responsive to PZQ	25 Biopsy	Cystoscopy	Yes (22/25)
[136]Silva IM	2008	Brazil	Mozambique	Travelers	m	unspecified	Infection not responsive to PZQ	1 Biopsy	Urine filtration	Yes
									Cystoscopy	Yes
[137]Soans B	1999	Australia	Malawi	Travelers	m	33	Testicular mass	1 Orchiectomy	Ultrasound	Yes
									Testis tumor markers	No
									Urine filtration	No
									Serology	Yes
[138]Sultana SR	1995	UK	Malawi	Travelers	f	22	Bladder granulomas	1 Biopsy	Ultrasound	No
									X-rays	No
[139]Tan WP	2017	USA	Mozambique	Migrants	m	22	Bladder granulomas	1 Biopsy	Biopsy only	
[140]Tilli M	2019	Italy	Subsaharian Africa	Migrants	unspecified	unspecified	Infection not responsive to PZQ	7 Biopsy	Cystoscopy	Yes (all 7)
[141]Torricelli M	1998	Italy	Morocco	Migrants	m	14	Pseudopolyp	1 Cystotomy	Ultrasound	Yes
									Urine filtration	Yes
[142]Turkistani I	2002	Saudi Arabia	Saudi Arabia	Endemic area residents	f	37	Infestation of a paravaginal tumor	1 Laparotomy	RMN	Yes
									Urine filtration	No
									Stool microscopy	No
									Serology	Yes
[143]Ze Ondo C	2013	Senegal	Senegal	Endemic area residents	m	6; 38	Testicular mass	2 Orchiectomy	Urine filtration	No (both)
									Ultrasound	Yes
									Testis tumor markers	No
[144]Zepeda CM	2015	USA	Egypt	Migrants	m	65	Bladder granulomas	1 Biopsy	Urine filtration	No

Supplementary Table 5 Studies regarding the treatment of cUGS with hydronephrosis. Age refers to the whole cohort studied in the article (not just the complicated patients) when in italic.

Ref.	Author	Year of publication	Study country	Country of infection	Study type	Patient type	Sex	Age	n	Treatment type	Follow-up length
[4]	Antwi S	2014	Ghana	Ghana	Case series	Endemic area residents	m/f	7; 12; 12	3	Surgery	ongoing
							m	12	1	PZQ only	1 year
[5]	Badmos KB	2009	Nigeria	Nigeria	Case report	Endemic area residents	m	25	1	Surgery	6 months
[6]	Bakari AA	2012	Nigeria	Nigeria	Case report	Endemic area residents	m	17	1	Surgery	1 year
[145]	Garba A	2004	Niger	Niger	Prospective cohort	Endemic area residents	m/f	unspecified	190	MDA (PZQ)	3 years
									5		
[146]	Hatz C	1990	Tanzania	Tanzania	Prospective cohort	Endemic area residents		<i>unspecified mean [range]: 12.5 [7-20]</i>	2	PZQ only	6 months
[147]	Kardorff R	1994	Mali	Mali	Prospective cohort	Endemic area residents	m/f	unspecified	9	PZQ only	1 year
[14]	Kazmi Z	2020	Pakistan	East Africa	Case report	Travelers	m	24	1	Combined	3 months
[148]	King CH	1990	Kenya	Kenya	Prospective cohort	Endemic area residents	m/f	<i>range: [4-21]</i>	8	Metrifonate	1 year
									5	PZQ only	1 year
[149]	King CH	2002	Kenya	Kenya	RCT	Endemic area residents	m/f	<i>range: [4-23]</i>	9	20 mg/kg PZQ	9 months
									14	40 mg/kg PZQ	9 months
[15]	Lorca J	2019	Spain	Myanmar	Case report	Travelers	f	34	1	Surgery	1 year
[150]	Mohyelden K	2020	Egypt	Egypt	RCT	Endemic area residents	m/f	<i>mean ± SD: 43.6 ± 13.0</i>	35	Combined	at least 18 months
									35	Combined	at least 18 months
[17]	Olajide AO	2012	Nigeria	Nigeria	Case report	Endemic area residents	m	23	1	Surgery	3 years
[18]	Oranusi CK	2011	Nigeria	Nigeria	Case report	Endemic area residents	m	33	1	Surgery	6 months
[151]	Ouma JH	2005	Kenya	Kenya	Case-control study	Endemic area residents	m/f	<i>mean ± SD: 29.1 ± 7.5 (age at follow-up)</i>	132	MDA (PZQ, metrifonate)	10-18 years
[19]	Pal PO	2017	UK	Zimbabwe	Case report	Migrants	m	41	1	Combined	15 weeks
[21]	Pieras Ayala E	2000	Spain	North Africa	Case series	Migrants	m	24	1	Combined	
[22]	Pollock GR	2020	USA	Somalia	Case report	Migrants	m	57	1	Robotic	
[152]	Rasendramino MH	1998	Madagascar	Madagascar	Prospective	Endemic area	m/f	>5	574	MDA (PZQ)	1 year

[153]	Ravi G	1993	Saudi Arabia	Saudi Arabia	cohort Prospective cohort	residents Endemic area residents	unspecified	mean [range]: 35 [4-80]	150	Surgery	6-24 months
[28]	Salas-Coronas J	2020	Spain	Africa	Retrospective study	Migrants	m	23; 31	2	Surgery	
[154]	Subramanian AK	1999	Kenya	Kenya	Prospective cohort	Endemic area residents	m/f	30 <i>median [range]: 24 [16-35] (age at follow-up)</i>	1	PZQ only	13 years (PZ)
[140]	Tilli M	2019	Italy	Subsaharian Africa	Retrospective study	Migrants	unspecified	unspecified	1	Surgery	
[31]	Vancauwenberghe T	2013	Belgium	Malawi	Case report	Travelers	f	66	1	Surgery	

Supplementary Table 6 Studies regarding the treatment of cUGS with bladder cancer.

Ref.	Author	Year of publication	Study country	Country of infection	Study type	Patient type	SexAge	n	Treatment type	Follow-up length
[155]	Abdou A	2012	France	Africa	Retrospective study	Travelers and migrants	m/fmean [range]: 50 [37-65]	15	Surgery	2-10 years
[156]	Almeida M	2014	Portugal	Africa	Case report	Migrants	m 62	1	Combined	19 months
[38]	Alvarez Kindelan J	1999	Spain	Senegal	Case report	Migrants	m 40	1	Surgery	
[157]	Aly MS	2012	Egypt	Egypt	Prospective cohort	Endemic area residents	m/fmean \pm SD; median [range]: 53.9 \pm 9.5; 54.5 [39-77]	41	Chemotherapy	
[62]	Ketabchi A	2012	Iran	Iran	Case report	Travelers	m 60	1	Combined	7 months
[64]	Lodhia J	2020	Tanzania	Tanzania	Case series	Endemic area residents	f 53	1	Radiotherapy	
[65]	Marbjerg LH	2015	Denmark	Mozambique	Case report	Migrants	f 40	1	Surgery	
[67]	Mina SN	2015	Egypt	Egypt	Case report	Endemic area residents	m 80	1	Endoscopy	
[69]	Mourad WA	1998	Saudi Arabia	Saudi Arabia	Case report	Endemic area residents	m 52	1	Chemotherapy	ongoing
[28]	Salas-Coronas J	2020	Spain	Africa	Retrospective study	Migrants	m 37; 46	2	Surgery	
[30]	Srougi V	2017	Brazil	Central Africa	Case report	Migrants	m ~35	1	Surgery	49 days
[73]	Vieira P	2007	Portugal	Mozambique	Case series	Expatriates	m 60	1	Combined	
[158, 159]	Wishahi MM	1994	Egypt	Egypt	Prospective cohort	Endemic area residents	m mean \pm SD; median [range]: 42.1 \pm 10.0; 43 [27-59]	13	Immunotherapy	6-20 months
[159]	Wishahi MM	1995	Egypt	Egypt	Prospective cohort	Endemic area residents	m mean \pm SD; median [range]: 45.0 \pm 13.9; 39 [23-70]	13	Immunotherapy	8-28 months

Supplementary Table 7 Studies regarding the treatment of cUGS with ectopic pregnancy or infertility.

Ectopic pregnancy										
Ref.	Author	Year of publication	Publishing country	Country of infection	Study type	Patient type	Age	n	Treatment type	Follow-up length
[160]	Aminu MB	2014	Nigeria	Nigeria	Case report	Endemic area residents	25	1	Surgery + PZQ	
[75]	Bahrami S	2006	USA	East Africa	Case report	Migrants	20	1	Surgery + PZQ	
[76]	Bugalho A	1991	Mozambique	Mozambique	Case series	Endemic area residents	21; 22; 28; 33	4	Surgery	
[161]	De Muylder X	1991	Zimbabwe	Zimbabwe	Prospective cohort	Endemic area residents	unspecified	2	Surgery	
[77]	Ekoukou D	1995	France	Mali	Case series	Migrants	29	1	Surgery + PZQ	3 months
[78]	Eogan M	2002	Ireland	Nigeria	Case report	Migrants	31	1	Surgery	6 weeks
[79]	Garba M	2004	Niger	Niger	Case report	Endemic area residents	21	1	Surgery + PZQ	2 years
[80]	Laroche J	2016	France	Mali	Case report	Travelers	26	1	Surgery + PZQ and metothrexate	
[81]	Laxman VV	2008	UK	Zambia	Case report	Migrants	37	1	Surgery + PZQ	
[83]	Odubamowo KH	2014	Nigeria	Nigeria	Case report	Endemic area residents	32	1	Surgery + PZQ	6 weeks
[84]	Okonofua FE	1990	Nigeria	Nigeria	Case report	Endemic area residents	34	1	Surgery + niridazole	6 weeks
[97]	Owusu-Bempah A	2013	Ghana	Ghana	Case report	Endemic area residents	34	1	Surgery	3 years
[85]	Sahu L	2013	India	unknown	Case report	Travelers	25	1	Surgery + PZQ	
[86]	Schneider D	2000	South Africa	South Africa	Case report	Endemic area residents	35	1	Surgery + PZQ	
[87]	Ville Y	1991	Gabon	Gabon	Case series	Endemic area residents	22; 22; 26	3	Surgery	
Female infertility										
Ref.	Author	Year of publication	Study country	Country of infection	Study type	Patient type	Age	n	Treatment type	Follow-up length
[88]	Bailey SL	2011	UK	Malawi	Case series	Travelers	43	1	PZQ only	
[89]	Balasz J	1995	Spain	Nigeria	Case report	Migrants	26	1	Surgery	
[90]	Darwish AM	1999	Egypt	Egypt	Case series	Endemic area residents	26; 30; 34	3	Surgery	
[91]	Jones KD	2003	UK	South Africa	Case report	Travelers	33	1	PZQ only	
[94]	Krolkowski A	1995	South Africa	South Africa	Case report	Endemic area residents	27	1	Surgery	
[95]	Morice P	1993	France	unknown	Case report	Migrants	33	1	Surgery	
[97]	Owusu-Bempah A	2013	Ghana	Ghana	Case report	Endemic area residents	34	1	Surgery	

								1	IVF		
[100]	Schanz A	2010	Germany	Nigeria	Case report	Migrants	30	1	IVF		
								1	Surgery		
[102]	Van Den Broucke S	2020	Belgium	Mali	Case report	Travelers	28	1	PZQ only	5 months	
								1	PZQ only	ongoing	
Male infertility											
Ref.	Author	Year of publication	Study country	Country of infection	Study type	Patient type	Age	n	Treatment type	Follow-up length	
[103]	Al-Qahtani SM	2010	France	Egypt	Case report	Migrants		31	1	Surgery	6 months
[104]	Kini S	2009	UK	Uganda	Case report	Travelers	unspecified		1	IVF	9 months

Supplementary Table 8 Case report and case series regarding the treatment of patients requiring surgery or invasive procedures in a not otherwise complicated disease.

Ref.	Author	Year of publication	Publishing country	Country of infection	Patient type	Sex	Age	Lesion	n	Treatment	Outcome	Follow-up length
[106]	Al-Saeed O	2003	Kuwait	Kuwait	Endemic area residents	m	range: [33-45]	Seminal vesicle mass	2	Excision of the mass	Unspecified	–
[108]	Azami MA	2018	Morocco	Morocco	Endemic area residents	f	28	Infected ovarian cyst	1	Excision of the cyst, bilateral adnexectomy, appendectomy, ablation of a part of the necrotic epiploon, followed by praziquantel single dose (40 mg/kg)	Unspecified	Ongoing
[109]	Badmus TA	2012	Nigeria	Nigeria	Endemic area residents	m	16	Testicular mass	1	Radical orchiectomy, followed by PZQ	Fully recovered	26 months
[88]	Bailey SL	2011	UK	Malawi	Travelers	f	34	Infected ovarian cyst	1	Unilateral adnexectomy, followed by praziquantel	Unspecified	–
[90]	Darwish AM	1999	Egypt	Egypt	Endemic area residents	f	34	Pelvic pain	1	Adhesiolysis and salpingectomy	Unspecified	–
[162]	Drew LB	2018	Malawi	Malawi	Endemic area residents	f	20; 35	Vesicovaginal fistula	2	Fistula repair, followed by praziquantel 40 mg/kg	Fully recovered	Unspecified
[116]	Efared B	2018	Morocco	Morocco	Endemic area residents	f	51	Ovarian mass	1	Excision of the cyst	Lost to follow-up	–
[118]	Fall I	1992	Senegal	Senegal	Endemic area residents	m	9	Testicular mass	1	Orchiectomy, followed by PZQ	Lost to follow-up	–
[121]	Kato-Hayashi N	2013	Japan	Mali	Travelers	m	21	Infection not responsive to PZQ (required biopsy)	1	Multiple courses of PZQ	Lesions almost resolved; subjective symptoms disappeared	15 months
[129]	Oguntunde OA	2020	Nigeria	Nigeria	Endemic area residents	m	9	Testicular mass	1	PZQ	Unspecified	Ongoing
[132]	Rambau PF	2011	Tanzania	Tanzania	Endemic area residents	m	9	Testicular swelling and atrophy	1	Orchiectomy, followed by PZQ	Unspecified	–
[163]	Silva IM	2005	Brazil	Mozambique	Travelers	m	median [range]: 29 [26-55]	Infection not responsive to PZQ (required biopsy)	26	Treatment with a single dose of praziquantel 40 mg/kg and retreatment with three more doses of praziquantel 40 mg/kg 15 days apart	17 fully recovered, 4 fully recovered after retreatment, 5 therapeutic failures	6-42 months

[136]	Silva IM	2008	Brazil	Mozambique	Travelers	m	unspecified	Infection not responsive to PZQ (required biopsy)	1	Seven courses of PZQ 40 mg/kg	Not fully recovered	62 months
[137]	Soans B	1999	Australia	Malawi	Travelers	m	33	Testicular mass	1	Orchiectomy, followed by PZQ	Fully recovered	4 months
[141]	Torricelli M	1998	Italy	Morocco	Migrants	m	14	Pseudopolyp	1	Cystotomy, followed by PZQ	Fully recovered	1 year
[142]	Turkistani I	2002	Saudi Arabia	Saudi Arabia	Endemic area residents	f	37	Infestation of a paravaginal tumor	1	Excision of the tumor, followed by praziquantel 40 mg/kg single dose	Fully recovered	Unspecified
[143]	Ze Ondo C	2013	Senegal	Senegal	Endemic area residents	m	6; 38	Testicular mass	2	Orchiectomy, followed by PZQ 40 mg/kg	Fully recovered	2-4 years

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