

HUMAN URINE-BASED THERAPEUTICS IN SPAIN FROM THE EARLY 20th CENTURY TO THE PRESENT: A HISTORICAL LITERATURE OVERVIEW AND A PRESENT-DAY CASE STUDY

TERAPIJA BAZIRANA NA LJUDSKOM URINU U ŠPANJOLSKOJ OD RANIH GODINA XX. STOLJEĆA DO DANAS: PREGLED POVIJESNE LITERATURE I STUDIJE SLUČAJA SADAŠNJEG VREMENA

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SUMMARY

Human urine is currently the subject of biomedical investigations as a potential therapeutic resource and it continues to be used in remedies in different cultures and societies, including the Spanish culture. In this study we gather etnomedical knowledge about urotherapy and determine their associated symbolisms in Spain. A literature overview and a case study were carried out to compile urine-based remedies and as a direct analysis of symbolic systems. Urotherapy is widespread in Spanish folk medicine. Among the 204 collected remedies, those related to treatment of diseases or skin conditions predominate (63%). Remedies have been

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reported for the treatment of skin diseases such as eczema, chloasma, alopecia, etc. to treat or alleviate burns, chilblains, wounds or skin chapping, and as a treatment of venomous bites. Most of the collected remedies have an associated naturalist symbolism, based on local traditions and the transmission of empirical initial knowledge. The use of urine in Spain is a result of the interaction of two types of practice: a local and traditional urotherapy, rural and with a utilitarian purpose, and a technical urotherapy, limited to an urban environment and a naturopathic medicine.

Key words: human urine; folk remedies; symbolism; overview; Spain.

INTRODUCTION

The historical review shows that urine therapy emerged in the remote past as a means of healthcare, and that it is universal and timeless in character. Going back to the beginning of therapeutics, it can be seen how copropharmacies were available to the ancient civilizations, including animal and human urine [1–3], and in the Greco-Roman world urine-based remedies appear in the great classical works [3–7]. However, it was not until the Hindu culture that human urine-based therapy achieved relevance. This practice – known as *amaroli* – is described in classical Sanskrit texts as the *Hatha Yoga Pradipika*. According to their ancient beliefs, drinking one’s own urine brings the benefits of a long full life [8].

Urine is under investigation and consideration as a potential biomedical therapeutic resource [9, 10]. It also has a large number of advocates like Raso, an author of the “Alternative” Healthcare: A Comprehensive Guide [11], Christy, an author of *Your Own Perfect Medicine* [12], or Schaller and Razanamahay, who have recently published *Urinothérapie* [13]. Moreover, urine therapy is found among the different types of complementary and alternative medicine (CAM) used by the patients with serious diseases, such as AIDS or cancer [14,15].

However, from an anthropological point of view, we believe that it is not a single convention, with just a single symbolism associated with its practice. Depending on the culture, there have been and still exist different “software” that explain and give meaning and orientation among people of different traditions [16–21]. Our interest arouses the knowledge that urine therapy is still currently operating in different parts of the world, in different cultures and societies, one of which is the Spanish culture. Therefore, the present study aims to gather Spanish ethnomedical knowledge about urine therapy, as an indicator of cultural identity, and determine their associated symbolisms. This type of knowledge has historically helped maintain collective cohesion of our society, within a common project framed in tradition. In general,

many practices of the Spanish traditional medicine are falling into disuse due to the strength and influence of biomedicine, however, health care is determined by the sum of traditional contributions, complementary therapies and the healthcare system, according to the current needs and interests of individuals. Because of this, we also plan to add present life experiences.

MATERIALS AND METHODS

We performed a double methodological approach: a systematic review of scientific literature to compile traditional remedies based on the use of urine, combined with a case study as a means of approximating actuality and as a direct analysis of symbolic systems.

The literature review was based on automatic searches in the databases of the information system of The Consejo Superior de Investigaciones Científicas (CSIC), the bibliographic web Dialnet, Google Scholar and the catalogue of the Bibliotecas Públicas del Estado (BPE).

This survey focused on the period from the beginning of the last century to the present. We checked for the existence of international works on Spanish traditional urine therapy, consulting the Web of Science and Scopus database.

The case study was conducted through a field work focused on two groups of people: (a) local traditional and (b) local non-native, i.e. in the area of alternative or complementary medicines. To facilitate participant observation and respondents' exposure to the experience we chose the social context of one of the authors (Valladolid and Palencia). This direct observation technique was applied to eight people. "Group A" is composed of a young woman (1a), another of mature age (2a), an elderly older man (3a) and an elderly young woman (4a). "Group B" consists of a young university student (1b), a man of mature age (2b), a woman of middle age (3b) and an older woman (4b).

Considering the authors of the different consulted references as "cultural interpreters", the information documented by them is assigned to different symbolisms, in our case: (1) naturalist symbolism, related to a local and traditional idea of nature as environment (climatic, spatial, mineral, vegetable, animal, human), "acting" with a utilitarian, practical and concrete purpose (naturally rebalancing), on mainly similar environments or parts thereof; (2) symbolism associated with traditional beliefs, related to a traditional idea, usually local, of the existence of "centers of power" (of different natures)

associated with certain natural-sensory actions and/or independent of them, which are in any case able to intervene and influence on expressions of alteration and imbalance leading to results that rebalance and cure; and (3) mixed symbolism (naturalism plus other beliefs and traditions), related to varied ideas, from different backgrounds, more or less intermingled and associated (with capacity-power to influence) with the physical-sensory process or with a specific action carried out on the health problem to gain rebalancing curative results.

Finally, the conditions treated with the use of urine were classified according to the chapters of the International Statistical Classification of Diseases and Related Health Problems, ICD-10 (<http://apps.who.int/classifications/icd10/browse/2010/en>).

RESULTS AND DISCUSSION

Urine therapy is widespread in Spanish traditional medicine, as evidenced by the obtained geographical data (Figure 1). Table 1 summarizes the ailments and diseases treated with human urine. Among the 204 collected remedies, those related to the treatment of diseases or skin conditions

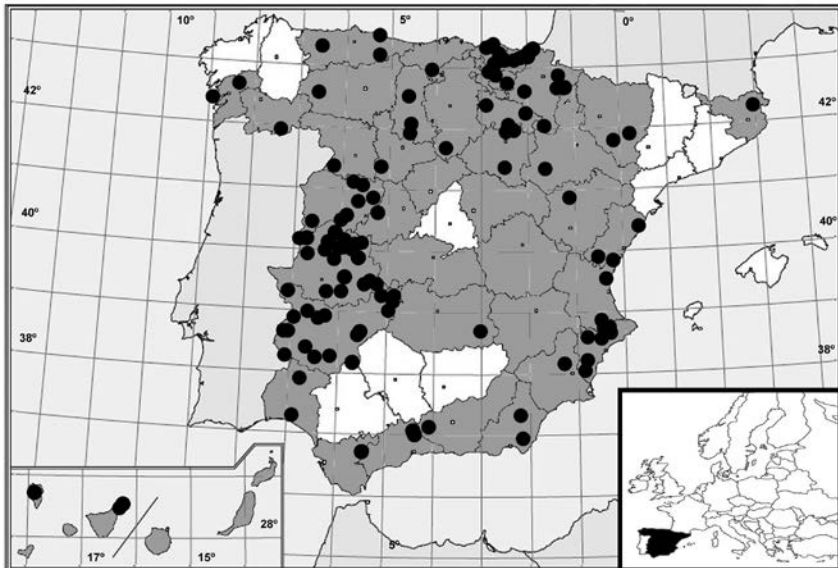


Figure 1: Geographical distribution in Spain of the traditional medical use of human urine. The black dots represent the localities and counties directly cited. In gray, provinces and Autonomous Communities mentioned.

predominate (63%). Remedies have been reported for the treatment of the skin diseases such as eczema, chloasma, alopecia, etc, to treat or alleviate burns, chilblains, wounds or skin chapping, and as a treatment of venomous bites.

Regarding the chapters of the ICD-10, the chapter XIX (relating to “Injury, poisoning and certain other consequences of external causes”) is the one with the highest number of therapeutic applications (34%) (Figure 2), followed, in order of importance, by the chapter XX (“External causes of morbidity and mortality”) with 13% of indications, the chapter XII (“Diseases of the skin and subcutaneous tissue”) with 12%, and the chapter I (“Certain infectious and parasitic diseases”) with a 10% of use reports. As regards the route of administration, 133 of the recorded remedies are for the external use – i.e., 65% of the total–, 35 (17%) are administered orally, and twelve remedies (6%) are based on washing eyes with urine. Furthermore, five remedies based on gargling, four based on “vapors seat”, and vaginal washings were recorded. These traditional uses of urine may be justified by the existence of biologically active substances in it, and there is an evidence pointing in that direction [10,92].

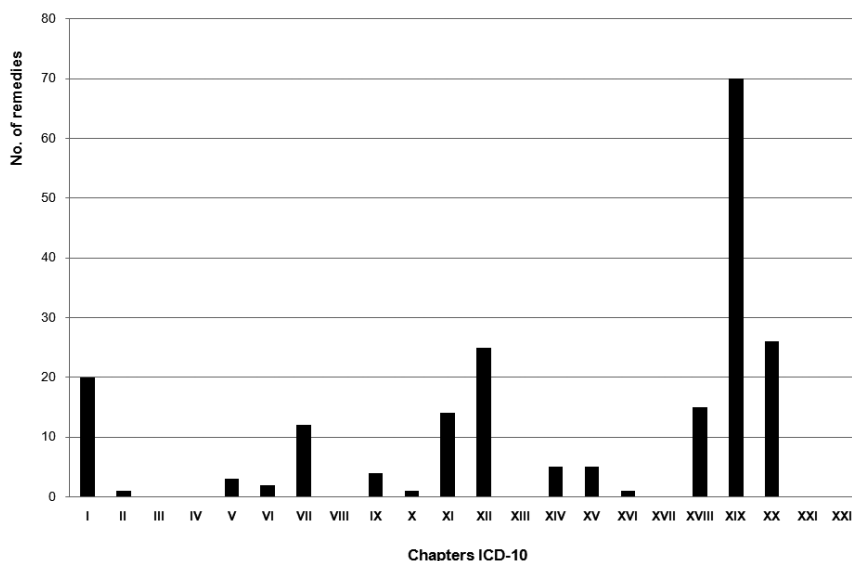


Figure 2: Relative importance of the diseases treated through the use of human urine in the Spanish ethnomedicine, ordered in accordance to the chapters established in the international classification ICD-10 (Table 1).

Table 1: Spanish traditional remedies based on the use of human urine. Symbolisms: NAT = naturalist symbolism, ATB = symbolism associated with traditional beliefs; MIX = mixed symbolism.

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
I. Certain infectious and parasitic diseases				
Tuberculosis	... despite the poor prognosis of tuberculosis, in the first phase good results were obtained from drinking the fresh urine of a one year old child, (it had the virtue of strengthening the chest)	ATB	Basque Country	Barriola, 1952 [22]; Barandiarán and Manterola, 2004 [23]
	Drink for seven days on an empty stomach a glass of child's urine of sweetened with honey	ATB	Tierras del Marquesado (Cáceres)	Domínguez Moreno, 2000 [24]
Scrofulosis (tuberculous peripheral lymphadenopathy)	... is a very widespread practice of washing your neck every morning with a child's urine	ATB	Province of Badajoz	Domínguez Moreno, 2006 [25]
Brucellosis	Give the patient to drink his/her own urine for three mornings in a row, mixed with chamomile tea (to drink it unknowingly)	NAT	Villanueva del Trabuco (Málaga)	Alcántara Montiel, 1990 [26]
Brucellosis	Ingesting the patient's own urine	NAT	Comarca del Alto Aragón (Huesca)	Ibáñez Fleta, 2009 [27]
Erysipelas	Until the forties of the twentieth century, the most common remedy to cure this disease was drinking one's own urine	NAT	Murchante (Navarra)	Barandiarán and Manterola, 2004 [23]
Herpesviral infections (in the hands)	... as there was no ointment, a good piss was applied	NAT	Sariñena (Huesca)	Ullod, 1994 [28]
Lip blisters (herpesviral vesicular dermatitis)	Apply urine	NAT	Castile and León	Carril, 1991 [29]
	Apply one's own urine	NAT	Santiago de la Puebla (Salamanca)	Gómez Garrido, 2008 [30]
Warts (viral warts)	Apply urine of a pregnant woman who has suffered in the past several abortions	ATB	Malpartida de Plasencia (Cáceres)	Domínguez Moreno, 2004 [31]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Warts (viral warts)	Apply one's own urine	NAT	La Vall d'Uixó (Castellón)	Castelló et al., 2008 [32]
	Urinating extensively on warts makes them dry, and soon fall	NAT	Province of Almería	García Ramos, 2008 [33]
Malaria	Against tertian fever, drink the patient's own urine	NAT	Province of Salamanca	Morán, 1927 [34]; Carril, 1991 [29]
	Take for nine consecutive mornings first urine of a under seven year old child, administered in small doses	ATB	Valle de Monterrey (Orense)	Taboada, 1947 [35]
	Drinking for nine consecutive mornings first voided urine by a child under seven, collected in glass	ATB	Sierra de Gata (Cáceres)	Díaz Mora, 1949 [36]
	Take for nine consecutive days the urine of a seven year old child, on an empty stomach	ATB	Province of Cáceres	Castillo de Lucas, 1958 [37]
Malaria	Urine is swallowed for tertian fever	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	... curiously there were those who drank their own urine, possibly as an antidote	NAT	Comarca de Sayago (Zamora)	Panero, 2005 [39]
Scabies	Almonte River enjoys a quirky reputation as a remedy for scabies, although the use of its waters needs some peculiar rituals. The patient chooses a night of a full moon, either male or female, is accompanied by two people of the opposite sex. The three persons have to undress on the bank, enter the river and take a sip of water, urinating immediately afterwards in the current. This ritual will be repeated nine times during the night. After the last void the scabby one will touch the affected part with a garment of each of the three, which is then dipped in the river bed tied to a stone.	ATB	Province of Cáceres	Domínguez Moreno, 2004 [40]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Scabies	Until the mid-twentieth century, to remove scabies, the root of the autumn crocus (<i>Colchicum autumnale</i> L.) was crushed and mixed with salt and urine. This mixture was rubbed all over the body, at bedtime	NAT	Ollávarre (Álava), Ceánuri (Vizcaya)	Barriola, 1952 [22]; López de Guereñu, 1960 [41]; Barandiarán and Manterola, 2004 [23]

II. Neoplasms

Cancer (without specification of site)	They claim drinking the urine of a child to be a good remedy for cancer	ATB	Elosua (Guipúzcoa)	Barandiarán and Manterola, 2004 [23]
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V. Mental and behavioural disorders

Gender identity disorders	People who, unhappy with the sex to which they belong, and would have the contrary, are commanded to urinate on the ground at points where the rainbow starts	ATB	Canary Islands	Pérez Vidal, 2007 [42]
Enuresis (of nonorganic origin)	Ingestion of one's own urine	NAT	Mérida (Badajoz), Sierra de Fuentes (Cáceres)	Domínguez Moreno, 1999 [38]
Enuresis (of nonorganic origin)	Currently endures a practice related to old beliefs: children are made to urinate three consecutive Fridays on the back of the portico of the hermitage of St. Pelayo, to stop doing it in bed	ATB	Baquio (Vizcaya)	Barandiarán and Manterola, 2004 [23]

VI. Diseases of the nervous system

“Alferecía” (childhood epilepsy)	The sick has to drink the urine of his/her mother together with coral powder	MIX	La Victoria (Tenerife, Canary Islands)	Sánchez Pérez, 1948 [43]; Pérez Vidal, 2007 [42]
Migraine	... a migraine patient took on an empty stomach urine girl, improving its attacks	NAT	3/4/43/4	Castillo de Lucas, 1958 [37]

VII. Diseases of the eye and adnexa

Hordeolum	Wash the eye with the urine of a virgin twin	ATB	Extremadura	Hurtado, 1901-1902 [44]
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Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Hordeolum	Flush the eyes with urine	NAT	Valdecaballeros (Badajoz)	Rodríguez Pastor, 1987 [45]; Domínguez Moreno, 2004 [31]
	Urine lotions. In many localities it is indicated that it must come from a virgin twin	ATB	Extremadura	Domínguez Moreno, 2004 [31]
	Is removed by washing with own urine, applied with a gauze	NAT	Oyarzun (Guipúzcoa)	Susperregi, 2008 [46]
Blepharitis	First washing the eyes with urine and then with chamomile infusion	NAT	Valle Guerra (Tenerife)	Ojeda Guerra and Martín Hernández, 1976 [47]
Conjunctivitis	Wash eyes with fresh urine from the same person	NAT	Valle Guerra (Tenerife)	Ojeda Guerra and Martín Hernández, 1976 [47]
	Wash the eyes of the suffering child with his/her mother's urine	ATB	Las Mercedes (Tenerife)	Ojeda Guerra and Martín Hernández, 1976 [47]
	Wash eyes with fresh urine of small child. This urine is the most healing and is valid for anyone affected	ATB	Tacoronte (Tenerife)	Ojeda Guerra and Martín Hernández, 1976 [47]
Glaucoma	Is alleviated by means of washings with urine	NAT	Tenerife and La Palma (Canary Islands)	Ojeda Guerra and Martín Hernández, 1976 [47]
Disorders of eye (without specification)	Eye wash with urine coming from an child	ATB	Montes de León (León)	Morán, 1927 [34]
	... used wash with own urine, freshly poured	NAT	Comarca de la Rioja Alta (La Rioja)	Manso de Zúñiga, 1948 [48]
Disorders of eye (without specification)	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]

IX. Diseases of the circulatory system

Varicose veins of lower extremities with ulcer	Rotten urine is applied, which gives excellent results as an antiseptic	NAT	Aldeanueva del Camino, Sierra de Gata (Cáceres)	Domínguez Moreno, 2003 [50]
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Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Varicose veins of lower extremities with ulcer	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
Haemorrhoids	They recommend washing with urine	NAT	Comarca de Monzón (Huesca)	Ferrández and Sanz, 1993 [51]
	Urine vapors are used, preferably with woman's urine	ATB	Province of Cáceres	Domínguez Moreno, 2006 [25]
X. Diseases of the respiratory system				
Asthma (obstructive, bronchitis)	Swallowing urine to prevent asthmatic crises, it had to be a child's urine	ATB	Asturias	Fernández-Guisasola Muñiz and Fernández García, 2012 [52]
XI. Diseases of the digestive system				
Teeth cleaning	... for cleaning teeth and gums, [...] this ancient custom still survives	NAT	Comarca de la Rioja Alta (La Rioja)	Manso de Zúñiga, 1948 [48]
	To keep your teeth in good condition should be rubbed with urine	NAT	Elorrio (Vizcaya)	Barriola, 1952 [22]
Toothache	It is necessary to rinse the mouth with urine to soothe toothache	NAT	Comarca de Monzón (Huesca)	Ferrández and Sanz, 1993 [51]
Toothache	Urine is swallowed	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	Urine mouthwashes calming dental ailments	NAT	Comarca del Campo de Montiel (Ciudad Real)	Villar Esparza, 2003 [53]
Peptic ulcer (site unspecified)	Drinking one's own urine for nine days	NAT	Torre los Negros (Teruel)	Sebastián Domingo, 1988 [54]
“Acedía” (gastric acidity)	Rubbing belly with urine from the same person	NAT	Tardaguila (Salamanca)	Blanco, 1985 [55]
	Rub lips and stomach with urine	NAT	San Miguel de Serrezuela (Ávila)	Carril, 1991 [29]
	Apply impregnations of urine on the lips	NAT	Province of Salamanca	Carril, 1991 [29]
	Oral administration	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Diseases of stomach	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
Obstruction	Oral administration	NAT	Valle del Jerte (Cáceres)	Flores del Manzano, 1992 [91]
“Quebracías” (children’s umbilical and inguinal hernia)	Take a chicken egg and make a hole at one end, so that its contents can be emptied completely. Then the egg shell is filled with broken child’s urine, and gets hung on a jasmine or a dark room where the child can’t pass, as the urine are dissipating, the child heals	MIX	Archidona (Málaga)	Alcántara Montiel, 1990 [26]
Diseases of liver	The sick person, in the morning before sunrise, went to the river and urinated in the water. Another person captured water downstream and gave it to the patient to drink	ATB	La Alberca (Salamanca)	Blanco, 1985 [55]

XII. Diseases of the skin and subcutaneous tissue

Cutaneous abscess, furuncle and carbuncle	Pull up a piece of elderberry bark, put it in a jar of child’s urine and rub with this mixture the affected skin	ATB	Ceánuri (Vizcaya)	Barandiarán and Manterola, 2004 [23]
Cutaneous abscess, furuncle and carbuncle	They said drinking urine removes them	NAT	Olaeta (Álava)	Barandiarán and Manterola, 2004 [23]
Eczema (unspecified)	Child’s urine rubbed into the cracks produced by the eczema	ATB	Huelva (town)	Garrido Palacios, 2001 [56]
	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
Urticaria	Apply fresh urine (be better if urination is done directly over the affected area)	NAT	Santa Cruz de la Sierra (Cáceres)	Domínguez Moreno, 2004 [40]
“Cabrillas” (erythema ab igne, dermatitis ab igne)	Topical application	NAT	Extremadura	Domínguez Moreno, 1999 [38]
“Comedones”, “espinillas” (acne)	Drinking one’s own urine	NAT	Basque Country	Barriola, 1952 [22]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
“Comedones”, “espinillas” (acne)	As refreshing and topical healing, the skin is rubbed with a piece of elderberry wet in the urine of a boy	MIX	Basque Country	Barriola, 1952 [22]; Castillo de Lucas, 1958 [37]
	Taking the urine as a beverage	ATB	¾/¾/¾	Castillo de Lucas, 1958 [37]
Plantar bromhidrosis (or podobromhidrosis)	Apply urine to eliminate foot smell	NAT	Western part of the province of Granada	Benítez, 2011 [57]
Alopecia	Collect one liter of water of the former spa. Pour the water into an oil bottle pee on it and with that mixture given frictions every afternoon. In addition, mix half a liter of pure alcohol with iodine and rub this mixture every morning	ATB	Monforte del Cid (Alicante)	Seijo Alonso, 1974 [58]
Chloasma	Is prevented by washing the face with child urine	ATB	¾/¾/¾	Sánchez Pérez, 1948 [43]
	Take your own urine for nine days, so that stains are removed	NAT	Calatayud (Zaragoza)	Ferrández and Sanz, 1993 [51]
	Apply one’s own urine	NAT	Sangüesa (Navarra)	Cruz Labeaga, 2007 [59]
Chloasma	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
Freckles	Apply own urine	NAT	Lemóniz (Vizcaya), Sangüesa (Navarra)	Barandiarán and Manterola, 2004 [23]
Skin spots (disorders of pigmentation, unspecified)	To remove the spots that have some newborns the best remedy is to rub them with his/her own urine	NAT	Malcocinado, Zalamea de la Serena (Badajoz)	Domínguez Moreno, 2004 [40]
	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Foot injuries (unspecified)	The urine was used frequently until the seventies, especially if the affected person was working in the country	NAT	Apodaca, Mendiola, Vitoria (Álava); Bidegoyan (Guipúzcoa); Durango (Vizcaya); Aoiz, Murchante, Sangüesa (Navarra)	Barandiarán and Manterola, 2004 [23]
To soothe the skin (facial cleansing)	In the forties to give smoothness to the skin, urine was applied on the face	NAT	Navarra	Iribarren, 1940 [60]
	Apply urine	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	In times past to soothe the skin urine of children was used	ATB	Allo (Navarra)	Barandiarán and Manterola, 2004 [23]
	To remove wrinkles... mix in equal proportion urine of donkey and menstruating woman	ATB	Mérida (Badajoz)	Domínguez Moreno, 2004 [40]
	To soothe the skin: wash your face with urine	NAT	Oyarzun (Guipúzcoa)	Susperregi, 2008 [46]
Wash with human urine	NAT	Asturias	Fernández-Guisasola Muñiz and Fernández García, 2012 [52]	

XIV. Diseases of the genitourinary system

Calculus of kidney	Compresses soaked in urine of baby and heated to the fire	ATB	Tamurejo, Valverde de Leganés (Badajoz)	Domínguez Moreno, 1999 [38]
Urinary incontinence	Peeing on the fire and rubbing the genitals with a toad bladder	ATB	Torremenga (Cáceres)	Domínguez Moreno, 1999 [38]
Disorders of uterus	Warm urine in a container to take “vapors seat” the woman affected... if the urine is of a woman and has been left outside in the cold for six nights the final result is better	ATB	Torrejoncillo, Ceclavín (Cáceres)	Domínguez Moreno, 1998 [61]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Amenorrhoea	Take for three mornings cups of urine mixed with red wine of so many other children	ATB	Olivenza, Mérida (Badajoz)	Domínguez Moreno, 1998 [61]
Excessive, frequent and irregular menstruation (menorrhagia or polymenorrhoea)	Vaginal washings with urine of breastfeeding baby girl	ATB	Extremadura	Domínguez Moreno, 1998 [61]

XV. Pregnancy, childbirth and the puerperium

To facilitate delivery (assisted delivery)	The woman in labor should drink the urine from her husband Drinking urine of virgin man, drink it produces disgust	ATB	Province of Salamanca Isle of Ons (Pontevedra)	Carril, 1991 [29] Castroviejo Bolívar and Alonso Romero, 2004 [62]
Cracked nipple associated with childbirth	The child's own urine directly applied with a cloth, instantly heals cracks	ATB	Cabezabellosa, Aceituna (Cáceres)	Domínguez Moreno, 1988 [63]
Acute endometritis	Collect urine in a container of all the women of the house. Subsequently a vaginal irrigation with this urine to the sick woman is given	ATB	Basque Country	Barriola, 1952 [22]
Abortion (as an abortifacient)	Take menstrual flow dissolved in urine of a virgin young woman	ATB	Province of Cáceres	Domínguez Moreno, 1984 [64]

XVI. Certain conditions originating in the perinatal period

Feeding problems of newborn (low weight)	The diaper was wet with newborn's urine, it was not removed for several hours because there was a belief that urine gave strength to the baby	ATB	Palencia (town)	Muriel Martín, 2008 [65]
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XVIII. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified

Colic (abdominal pain)	In the case of suffering abdominal pain men, intake of urine own or that of a child is recommended	MIX	Basque Country	Barriola, 1952 [22]
Jaundice (unspecified)	Take urine of a child or a virgin	ATB	3/4/43/4	Castillo de Lucas, 1958 [37]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Jaundice (unspecified)	Piss on a piece of bread and give it to a dog, it will contract the disease (by the magic of transmission)	ATB	Castile	Castillo de Lucas, 1958 [37]
	It is common in many villages the custom of urinating on a piece of bread and then give it to a dog to eat	ATB	Valencian Community	Seijo Alonso, 1974 [58]
	Fry a kilo of meat with urine of the patient, and throw the meat to a dog. It is necessary that the patient is not found, then the remedy would not give the desired results	ATB	Benisoda (Valencia)	Seijo Alonso, 1974 [58]
	Mutton is boiled with urine of the patient, giving it after eating a dog. This is done for three consecutive days, in addition three Creeds are prayed to the Holy Trinity	ATB	Benimarfull, Muro de Alcoy (Alicante)	Seijo Alonso, 1974 [58]
	“Night urine” mixed with flour and a pint of vinegar. The mass obtained is poured into a pot and taken away, without the patient nor his/her family know where allowed	ATB	Novaliches –Jérica– (Castellón)	Seijo Alonso, 1974 [58]
	Kneading bran together with urine of the patient, put the resulting dough into a bag and hang it under the mattress of the bed of the afflicted, without him/her understands something	ATB	Ibi (Alicante)	Seijo Alonso, 1974 [58]
	Patient’s urine is collected without him/her knowing. Egg shells are emptied and filled with urine and one tea-spoon of deer antler velvet, stirring well all. Once this is done, the shells are covered with a glob of plaster or flour paste, and placed on the coals. Fire consumes slowly urine and eggshells. By placing shells on the coals and after crossing himself, a spell is said to be effective cure	MIX	Province of Alicante	Seijo Alonso, 1974 [58]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Jaundice (unspecified)	Formerly, “night urine” was burned for nine days in a clay pot. This simple operation was enough to make the symptoms disappear	ATB	Alcolecha (Alicante)	Seijo Alonso, 1974 [58]
	Drink a few sips of urine of a child or a virgin woman	ATB	Fuenteguinaldo (Salamanca)	Carril, 1991 [29]
	Swallowed urine	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	Ritual... urinating on a new mop. Then put between strips some bread pieces to absorb that and go outside, look for a dog to eat the bread, so that the sick will be healed. Apparently it is through the mediation of St. Gemma	ATB	Fuenteheridos (Huelva)	Garrido Palacios, 2001 [56]
	Ritual... you must knead with bran the first urine of the day of the patient. This was done daily for nine days. Small balls were formed, which were given to feed a black dog. The gradual decay of the animal was associated with healing of the sick child	ATB	Cuesta Blanca (Murcia)	Rabal Saura, 2006 [66]
Rash (nonspecific skin eruption)	Since there were no ointment, a great piss was applied	NAT	Sariñena (Huesca)	Ullod, 1994 [28]

XIX. Injury, poisoning and certain other consequences of external causes

Dislocation of wrist	Wash with human urine	NAT	Province of Salamanca	Morán, 1927 [34]
	Rubbing with urine on the painful area	NAT	Province of Salamanca	Carril, 1991 [29]
Sprains and dislocations (involving multiple body regions)	They say the human urine is good. With it soak a cloth that is placed by a strong bandage	NAT	Mondragón (Guipúzcoa)	Barandiarán and Manterola, 2004 [23]
Sprains (unspecified)	They put cataplasms of urine of young children. Urine was used which had been put a hot roof tile. They put cloths soaked on it over the sprain	ATB	Caleo –Caso–, El Eslabayo –Colunga– Tuña –Tineo– (Asturias)	Álvarez Peña, 2004 [67]
	Apply rubs with hot urine	NAT	Bienvenida, Zalamea de la Serena (Badajoz)	Domínguez Moreno, 2006 [68]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Blisters (nonthermal)	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
Burns	When the burns are produced by a liquid boiling severe blisters occur in the skin. To prevent them from occurring (provided you act in an immediate way) ... soak the area with urine, especially of a child (also credited dermal antiseptic and restorative power)	ATB	Extremadura	Domínguez Moreno, 2003 [50]
	Apply fomentations of hot piss	NAT	Canary Islands	Pérez Vidal, 2007 [42]
Chilblains (effect of reduced temperature)	Pissing on the hands	NAT	Province of Salamanca	Morán, 1927 [34]
	Urinating on hands at night (at bedtime) and let the urine dries (to air dry)	NAT	3/4/4 3/4	Castillo de Lucas, 1958 [37]
	Apply urine from the same person	NAT	Villanueva del Conde, Martinamor (Salamanca)	Blanco, 1985 [55]
	Urinating on them	NAT	Ventosa de San Pedro (Soria)	García Arambilet, 1990 [69]
Chilblains (effect of reduced temperature)	Urinating on the hands was widespread practice	NAT	Province of Salamanca	Carril, 1991 [29]
	Apply urine to relieve itching	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	Wet hands with own urine	NAT	Extremadura	Domínguez Moreno, 2004 [31]
	Apply human urine	NAT	Sangüesa (Navarra)	Cruz Labeaga, 2007 [59]
	... among the remedies used to relieve itching and pain ... it is good to scrub them with one's own urine of the person who suffers	NAT	Villena (Alicante)	Gandía Hernández, 2007 [70]
	Apply urine	NAT	Valencia del Mombuey (Badajoz)	Gregori, 2007 [71]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Chilblains (effect of reduced temperature)	Give rubs with urine	NAT	La Aparecida (Alicante)	Hernández Ortega, 2007 [72]
	Moisten it with urine	NAT	La Vall d'Uixó (Castellón)	Castelló et al., 2008 [32]
	Apply own urine	NAT	Santiago de la Puebla (Salamanca)	Gómez Garrido, 2008 [30]
	Apply urine, to mitigate stinging pain	NAT	Western part of the province of Granada	Benítez, 2011 [57]
Chapped hands	It is a widespread and common practice hand washing with urine	NAT	Basque Country	Barriola, 1952 [22]
	Wet hands with warm urine itself; commonly this is performed at the time of going to bed and leaving the hands to air dry	NAT	3/4/43/4	Castillo de Lucas, 1958 [37]
	Apply urine over cracks	NAT	Peñíscola (Castellón)	Seijo Alonso, 1974 [58]
	Apply urine from the same person	NAT	Villanueva del Conde, Martinamor (Salamanca)	Blanco, 1985 [55]
	Urinating on them	NAT	Province of Soria	García Arambilet, 1990 [69]
	Urinating on the hands was a widespread practice	NAT	Province of Salamanca	Carril, 1991 [29]
	... is a rural custom to urinate on their hands to keep them free of cracks and smooth, despite being exposed to the hard work of the countryside	NAT	Comarca de la Ribera del Duero (Burgos)	Martín Criado, 1999 [73]
	Hand washing with person's own urine	NAT	Merindad de Campoo (Cantabria)	Moreno Landeras and Gutiérrez Delgado, 2001 [74]
	There were men who cured their hands by urinating frequently on them	NAT	Comarca de Tabierós (Pontevedra)	Reimóndez Portela, 2001 [75]
Urinating your hands directly on	NAT	Extremadura	Domínguez Moreno, 2003 [50]	

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Chapped hands	Wet cracks with own hot urine	NAT	Astigarraga (Guipúzcoa)	Elorza Espelosin, 2003-2004 [76]
	In the absence of softener creams, urine served as a balsam for irritated and worked hands of women. They are washed with the urine before going to bed and the next day when getting up	NAT	Comarca del Campo de Montiel (Ciudad Real)	Villar Esparza, 2003 [53]
	Wash with own urine. In Murchante (Navarra), until the decade of the seventies, ... were cured with a wash of morning urine because it was considered cleaner	NAT	Basque Country and Navarra (many localities)	Barandiarán and Manterola, 2004 [23]
	There were people who urinated over the cracks leveraging the salts of the urine	NAT	Comarca de Sayago (Zamora)	Panero, 2005 [39]
	Apply urine	NAT	Valencia del Mombuey (Badajoz)	Gregori, 2007 [71]
	Apply own urine	NAT	Santiago de la Puebla (Salamanca)	Gómez Garrido, 2008 [30]
	It is applied to these lesions recently obtained human urine. Typically, those who use this remedy use their own urine	NAT	Dueñas, Valles de Valdivia (Palencia)	Muriel Martín, 2008 [65]
	To soften the skin of the hands urine is good, as clean as possible	NAT	Oyarzun, San Sebastián (Guipúzcoa)	Susperregi, 2008 [46]
	Urinating on own hands while rubbing each other	NAT	Badajoz (twon)	Martín Alvarado, 2010 [77]
	Emollient for chapped hands. Urine is used to wash the hands	NAT	Castile-La Mancha	Quave et al., 2010 [78]
	Several farmers claimed to use their own urine to improve cracks on their hands caused by farm work	NAT	Western part of the province of Granada	Benítez, 2011 [57]
	Wash with urine	NAT	Asturias	Fernández-Guisasola Muñiz and Fernández García, 2012 [52]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Chapped lips (lip fissures)	Apply urine on the zone	NAT	Torre los Negros (Teruel)	Sebastián Domingo, 1988 [54]
	Wash with urine	NAT	Gallinero (Soria)	García Arambilet, 1990 [69]
	Apply urine child by gently touches (using a cloth soaked in it)	NAT	Tejeda de Tiétar, Toril (Cáceres)	Domínguez Moreno, 2003 [50]
	Wet cracks with own hot urine	NAT	Astigarraga (Guipúzcoa)	Elorza Espelosín, 2003-2004 [76]
Chapping skin (unspecified)	Apply own urine or urine of a small child	ATB	San Sebastián (Guipúzcoa)	Susperregi, 2008 [46]
	Clean cracks with own urine	NAT	Comarca de El Ampurdán (Gerona)	Martí i Pérez, 1988 [79]
	Applying over cracks fresh piss when you first get up	NAT	Torre los Negros (Teruel)	Sebastián Domingo, 1988 [54]
	Apply urine to heal the cracks	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	The cracks healed by applying fresh urine on the affected area	NAT	Province of Soria	Goig Soler and Goig Soler, 2003 [80]
	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
Contusions, bruises (unspecified)	Apply fomentations of hot piss	NAT	Canary Islands	Pérez Vidal, 2007 [42]
Traumatisms (unspecified)	Using urine (rubs) to relieve traumatisms	NAT	Extremadura	Domínguez Moreno, 1999 [38]
Wounds (open wounds, flesh wounds, superficial cuts)	Foot wounds are treated with the person's own urine	NAT	Province of León	Morán, 1927 [34]
	Wash with urine of the injured person	NAT	Villanueva del Conde (Salamanca)	Blanco, 1985 [55]
	Urinating on the wound. "It stings, but what stings cure"	NAT	Valdespina, Bretún (Soria)	García Arambilet, 1990 [69]
	Topical application	NAT	Province of Salamanca	Carril, 1991 [29]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Wounds (open wounds, flesh wounds, superficial cuts)	Topical application, to clean wounds	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	The urine clean wounds and stop hemorrhage, if you are on an empty stomach	NAT	Fuenteheridos (Huelva)	Garrido Palacios, 2001 [56]
	In Jarandilla, urine macerated along one night with tobacco leaves constitutes an excellent wound-healing product. However, in most villages urine without further elaboration is preferred, but people believe that the results vary according to certain characteristics. In Calamonte, it is current on the wound to apply urine soaked diapers, especially when the wound is located on lactating breasts. In Talaveruela, it easier and more rapid healing gotten if the urine comes from a young woman menstruating and she who pees directly on the wound. Requirement that the donor is a virgin.	ATB	Calamonte (Badajoz); Berzocana, Jarandilla de la Vera, Plasenzuela, Sierra de Fuentes, Talaveruela de la Vera (Cáceres)	Domínguez Moreno, 2003 [50]
	Apply urine directly to heal the wounds caused to the ears	NAT	Feria (Badajoz)	Muñoz Gil, 2003 [81]
	Using urine to heal wounds and sores	NAT	Apéllaniz (Álava)	Barandiarán and Manterola, 2004 [23]
	Rub urine on the injury area	NAT	Aoiz (Navarra)	Barandiarán and Manterola, 2004 [23]
	Topical application	NAT	Guadiana del Caudillo (Badajoz)	Vallejo, 2008 [49]
	Urine, as an antiseptic	NAT	La Vall d'Uixó (Castellón)	Castelló et al., 2008 [32]
	Urine is used as antiseptic	NAT	Níjar, Olula del Río (Almería)	García Ramos, 2008 [33]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Wounds (open wounds, flesh wounds, superficial cuts)	In case of injury during tasks in the fields ... urinate on the wound, urine disinfects and heals the wound	NAT	Meliana (Valencia)	Carmona Simarro et al., 2009 [82]
XX. External causes of morbidity and mortality				
Bitten or struck by dog	Urinating on the wound is most salutary on such occasions, although it should be noted that it is optimal that the jet emanating directly from the urethra of a person of the opposite sex	ATB	Extremadura	Domínguez Moreno, 2005 [83]
Contact with venomous snakes (snake bite)	Formerly they drank three glasses of their own urine, or if possible the urine of two children who that year had taken the First Holy Communion and were born either on Good Friday or Christmas	ATB	Alía, Guadalupe (Cáceres)	Domínguez Moreno, 2005 [83]
Contact with tarantula	It was cured by putting mud mixed with urine on the bite The sting was cured by smearing mud and urine from the person who had been bitten	NAT	Castroño (Valladolid)	Díaz de Ancos, 2007 [84]
Contact with wasps and bees	... to combat swelling caused... apply mud on the affected area. In case of not having mud then immediately, with own urine	NAT	Aldeanueva de Ebro (La Rioja)	Vicuña Ruiz, 1977 [85]
	Apply urine and crude oil	NAT	Valdelosa (Salamanca)	Blanco, 1985 [55]
	Make mud with urine and apply it on the sting	NAT	Extremadura	González Pozuelo, 1985 [86]
	A mixture of soil and urine is used, the mud that gets is applied on the bite	NAT	Comarca del Alto Guadalhorce (Málaga)	Alcántara Montiel, 1990 [26]
	The remedy par excellence is mud and if there is no water nearby, urinate	NAT	Province of Soria	García Arambilet, 1990 [69]
	Apply mud made with urine	NAT	Province of Salamanca	Carril, 1991 [29]
	To reduce swelling caused by the sting apply urine mixed with mud	NAT	Castile and León	Carril, 1991 [29]

Treated diseases or disorders	Preparation and administration	Symbols	Geographical location	References [22–91]
Contact with wasps and bees	To reduce pain and swelling mud is applied, made with urine in the absence of water	NAT	San Vicente de Alcántara (Badajoz)	Pámpano and Redondo, 1997 [87]
	To reduce swelling apply urine	NAT	Extremadura	Domínguez Moreno, 1999 [38]
	Urine and soil	NAT	Valencia del Ventoso (Badajoz)	Gordón and Penco, 2003 [88]
	Urinating on land and with the resulting mud smearing the sting	NAT	Feria (Badajoz)	Muñoz Gil, 2003 [81]
	... silt and urine, this should belong to the stung person... lowers inflammation and the pain is relieved	NAT	Comarca del Campo de Montiel (Ciudad Real)	Villar Esparza, 2003 [53]
	If there is no other remedy it is advised to urinate on the sting	NAT	Bermeo (Vizcaya)	Barandiarán and Manterola, 2004 [23]
	Apply mud made with a stream of urine from the stung person	NAT	Extremadura	Domínguez Moreno, 2005 [83]
	... cover the zone of the sting with mud. Whenever possible it is recommended to urinate and make mud with the urine	NAT	Villena (Alicante)	Gandia Hernández, 2007 [70]
	Apply urine or mud formed urinating on land	NAT	Valencia del Mombuey (Badajoz)	Gregori, 2007 [71]
	If you have been stung when there is a place where you can find mud near, you can make it with urine poured over the land	NAT	Province of Almería	García Ramos, 2008 [33]
Stingers extraction	Apply a poultice made with mud and urine. Let dry and remove	NAT	Ubrique (Cádiz)	Rodríguez Aguado, 2001 [89]
Contact with jellyfish	If a jellyfish stings, urine is a good palliative	NAT	Canary Islands	Pérez Vidal, 2007 [42]
Contact with nettles (urticaria)	Applying urine	NAT	Western part of the province of Granada	Benítez, 2011 [57]
Contact with unspecified venomous animal	Applying urine	NAT	Western part of the province of Granada	Benítez, 2011 [57]

Treated diseases or disorders	Preparation and administration	Symbolisms	Geographical location	References [22–91]
Venomous bites and stings (unspecified)	Put mud made with urine on the bite	NAT	Comarca de La Siberia (Badajoz)	Otero Fernández, 1983 [90]

Human urine is an incredibly complex biofluid, it can contain 3,000 chemicals. It is rich in urea and uric acid, and presents proteins such as albumin and the Tamm-Horsfall glycoprotein. Calcium, phosphorus and creatinine are removed through the urine in values that vary with the age, sex and muscle mass of the individual. In addition, ordinary urine contains various electrolytes, ketones and urobilinogen, and may also contain crystals of calcium oxalate and phosphate. Besides, there are no significant amounts of antibodies, enzymes, hormones, glucose and water-soluble vitamins [93,94].

However, these traditional remedies do not only have an interest in biological or therapeutic fields but also in other levels of the person that we classify here under the term “symbolisms”. Most of the remedies compiled in our literature review (ca. 72%) are associated with a naturalist symbolism based on local traditions that have been passed from empirical knowledge. The symbolisms associated with traditional beliefs constitute 26% of the total, and in five cases there is a mixed symbolism, which integrates naturalism with other beliefs and traditions (Table 1).

Thus, for example, we can highlight information with symbolisms based on belief in cases of ophthalmic problems and animal bites. There are arguments for using the urine of virgin twins on the eye to cure sties in some areas of Extremadura [31,44], or for administrating the child’s urine [29, 36, 67]. In the province of Cáceres, for a snakebite it is recommended to take three glasses of your own urine, or of the two children who have taken First Communion in the same year or who were born either on Good Friday or Christmas [83]. This reference is loaded with symbolism even beyond the natural virtues of one’s own urine as a curative. Beliefs are involved that correspond to associated information or software, which complete physical medicine, the remedy. In this sense, the practice of urinating on fire and rubbing the genitals with a toad bladder to help cure urinary incontinence, were noted in Torremenga, Cáceres [38]. All these symbolisms, naturalists or relating to beliefs, complete both the visions of the problems and the treatments. In some places in Castile and León, a marital symbolism was added to the possible natural virtues of urine, so that “the parturient should drink the

urine from her husband to facilitate childbirth” [29]. Here is an interesting naturalist symbolism reference to nonspecific liver diseases in La Alberca, Salamanca: “In the morning before sunrise, the sick person went to the river and urinated in the water. Another person collected water downstream and gave it to her to drink” [55]. In La Victoria (Tenerife) nervous system problems, such as *alferecía*, were treated by giving the patient the urine from her mother with added powder of coral [43]. Again, more mixed symbolism: the urine has to be from a parent (the mother) and it has to be mixed with exotic natural elements.

Today, urine is a bodily waste associated with dirt and bad odor for most people, but for many people involved in the search or application of naturopathic treatments, it is an element with many healing properties, which also helps to keep the functional balance in healthy individuals.

Regarding the development of new medical techniques, note here the way of utilization of the patient’s own urine, previously centrifuged and treated with ozone, developed by the clinic Clinalgia (Murcia) for treating and curing a series of chronic diseases such as allergies, asthma or psoriasis. Human urine remains aseptic and becomes a natural auto-vaccine being injected to the patient through an intradermal application carried out in the abdomen. This treatment achieves an efficiency of 87% and it has no contraindications or side effects [95].

As we analyze symbolic references or those mixed with symbolism, we do not intend to explain them. We will just describe them because of our interest in the anthropological concept of health. And so, in a “fact-status of communicable experience” [96] in which the discourse given by the sufferers and their explanatory models are those that can lead us to approach an understanding of the experienced problems [16]. Understanding the symbolisms necessarily entails listening to the first hand experience stories of those who have lived through them. Thus, the following describes the symbolisms obtained through participant observation in the groups (A), informants 1a, 2a, 3a, 4a, and (B), informants 1b, 2b, 3b, 4b.

The first informant (1a), a professional of Valladolid and a mother, older than 35 years, presents an associated symbolism of a naturalist type. She says: “For nettle stings urine is great. In the village we put some beer stands on the banks of the river. Next to the stands were loads of nettles. All the kids got stung. We saw all the mothers having their children urinating on their own bare feet with immediate results. The redness, stings and swellings

disappeared instantly. Amazing! I had seen it done before and I value it. I have no hesitation in using urine in other situations related to skin problems and to apply it to my husband or my son”.

The following informant (2a) is a 49-year-old nurse, living in Guadalajara though originally from Palencia. She used urine therapy for months in various ways and emphasizes the use of urine as a “facial product”, and says that it gave satisfactory results: a smoother skin which is more resistant to external aggressive agents. In the interview, she said: “I had written my experiences down but do not know where I left them. I can tell you that I took some and it worked. No problem. I am still using urine from time to time, especially for my face. I have recommended it to friends and they still use it. You ask me about the symbolism. I think that I am closer to the traditional naturalist meanings. I do not see it as a technical form but more as a natural medicine. The value for me is that urine therapy is something of oneself. It has your personal mark and therefore could help you. I have always heard the elders in my area that urine was very good for chapped, dry and sore hands. I can not find any inconvenience. It works well for me and I don’t find it disgusting at all”.

An 85-year-old man (informant 3a), a native of La Puebla de Valdivia (Palencia), who in his youth worked in the country, gives us a rural and traditional symbolism. He referred to remedy: “At the time of harvest I would get my feet and legs scratched with wheat straw. When urinating, I would pee on my legs and it helped”.

A retired teacher from the El Cerrato area (Palencia) (informant 4a) told us that even knowing about the local tradition of using urine for certain troubles, and its good results, she could never make herself drink it. This informant also later learned about urine therapy from the advice of some naturopaths. This is a case where the rural symbolism is inhibited by disgust and a cultural reticence.

The informant 1b is a 21 year old university student who presents an initial motivation to use a utilitarian urine therapy, technical and based on the influence of complementary medicines. He states, that given his advanced alopecia he searched for information on natural treatments, eventually opting for urine therapy. It was a hereditary alopecia (grandfathers, maternal and paternal uncles had all lost their hair at a young age). Our informant conducted during several months a plan consisting of rubbing in circles, at least twice a day, the scalp with pure urine and urine diluted with a 50% of

water. After this time, he observed that hair loss was slower; even some new fine hair appeared on the forehead. He also drank his own diluted urine. He reported no adverse effects from drinking it, but neither noted significant improvement in hair growth nor an increase in his general welfare. After a while he became bored and stopped. "Laziness", he explains. The small improvement in his hair growth did not encourage him to continue the treatment. He ended up not caring about having less hair than other people his age. When asked about the personal symbolism associated with the use of urine, he could not find one. He says, he believes in the natural value of this compound even though it does not always work.

The second informant group B (2b) is the person who provides us the most data and experience information. He practices a technical urine therapy with a naturalistic symbolism that associates the idea of equivalence between the natural and the innocuous. Referring to homeopathy, he states: "*Similia similibus curantur*, as Hahnemann said. Urine is something of our own, carrying the «print» of what we are. Thus it may serve as a remedy in cases and situations that occur in our body, and in which other remedies can't do much. It works as an auto-isotherapy". He has used his own urine instilled into his nose in cases of colds and rhinitis, always with satisfactory results. "What does this satisfaction consist of?", we asked him. He replied: "In having positive and rapid effects. Positive, in the sense of stopping a cold or ending rhinitis, and rapid, because it happens in a couple of days. It is rather commonplace that I use it as soon as I notice my first symptoms. Adverse effects: None. Moreover, my nose had chronic dryness, but since I have used urine therapy, end of problem". He has used urine by gargling 1-2 times a day for pharyngitis. In these cases the results were not as quick, but the pain has decreased since the first moment. He drank his urine diluted with a 50% of water as an experiment for the maintenance of wellness and kept a diary during nearly a month recording the immediate effects and significant perceptions. He indicated a feeling of euphoria and having more energy from the third day. Also, he noted the disappearance of the "euphoria" after a week and the normalization of his life. He does not express having suffered any adverse effects. "Nothing negative was found in a blood test", he adds. He abandoned the continuous use of urine considering it unnecessary outside certain concrete situations of alteration. He also uses urine directly or diluted in water, such as aftershave lotion. "Urine leaves my face perfect, that usually gets irritated and has pimples after shaving. It is excellent. Urine instantly calms my skin". He relates: "When I drank the urine daily, my skin

took on a nice summer color. It also happens when I use it as an after shave lotion. If my foot hurts, or a sprain it while participating in sports, I apply a bandage soaked in urine. The discomfort and swelling disappear in less than 24 hours. From time to time I wash my eyes with diluted urine, for example when I have worked a lot with the computer. My vision recovers and normalizes. I used gargling when I had fungus on the tongue and throat as a side effect of the flu. It also went away. I did not have to take any chemical fungicides or plant remedies. For other problems, I have not used it but I'm willing to, if necessary”.

An English teacher (informant 3b) also practiced urine therapy to improve her general condition and as a protection from the aggressive winter cold, damp, germs, etc. Unlike informant 4a, she explains that the symbolism –in this case naturalist– causes an initial motivation for the practice of a technical and utilitarian urine therapy, but eventually repugnance inhibits the use of this treatment. She was taking her own diluted urine for about two weeks, but she emphasizes that disgust made her abandon the treatment. She had no negative effects whatsoever, but she is also not able to specify whether any benefit was obtained.

Our last informant (4b) is a teacher of Religion in Public Education. Affected by a long-term rhinitis in which she had lost some of her sense of smell, she began treatment with auto-urine therapy applying to her nostrils several drops of her own urine twice daily. She combined this approach with phytotherapy. The first thing that recovered completely was the sense of smell. The nasal problem (mucosal swelling) also disappeared in about two weeks. She said it was not unpleasant, and valued the urine therapy as an effective and cheap remedy. She did not mention any associated symbolism. She saw the urine as a remedy more affordable, than, for example, isotonic saline serum, “but better” (in her own words).

In addition to the symbolic aspects, we wish to emphasize the complex structure of the health-welfare problems we consider and also the complexity of the remedies, correction proposals, therapies and treatments related to urine therapy. In reality, it is the expression of a set of social, psychological, biological, ecological and cultural dimensions.

Regarding the validity of urine therapy in the Spanish traditional medicine, Barandarián and Manterola [23] state that it was used in different parts of the Basque Country and Navarra in the past. These same authors note that in Murchante (Navarra) “... the urine was used frequently up until the

seventies, especially if the affected person was a farm worker". However, in ca. 90% of the studies published so far in the 21st century, the authors describe the remedies collected in their field studies in the present tense (as something actual) [25,46,56,65]. Moreover, direct data obtained in this study allow us to affirm that the use of urine is still today a current therapeutic resource, and that there is an interaction between the traditional and the technical urine therapy.

The case study leads us to believe that the data compiled is not culturally "aseptic" information, even in those cases in which references are focused solely on a therapeutic use. Nor in the theoretically "naturalist" situations of urine therapy, have professionals and researchers trained in science whom we know and who have also given us their impressions (both from experience and from observation), added to their narrations associated information of a cultural nature.

CONCLUSIONS

Medical anthropology, theoretical or applied, recognizes the diversity of ways of understanding and addressing health-wellness across the globe. Urine therapy is one example, and in general (based on the results) we can say that the corrector and rebalancing use of urine is not *a priori* an action of a superstitious nature as one might think from a strictly positivist perspective and position.

The use of human urine in Spanish traditional medicine is still in force as a result of the interaction of two types of practices: (i) a local, traditional, popular, and rural urine therapy with a utilitarian purpose, which was widespread until the decade of the seventies and still continues to be practiced today. The associated symbolisms observed range from naturalistic to belief symbolisms; (ii) a urine therapy we would call technical, currently growing and confined to natural health care contexts, primarily urban, and also with specific and utilitarian purposes. In some cases we have not found associated symbolisms, or they have been of a naturalist type.

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SAŽETAK

Ljudski je urin trenutačno predmet biomedicinskih istraživanja kao potencijalno terapijsko sredstvo i dalje se koristi kao lijek u različitim kulturama i društvima, uključujući i španjolsku kulturu. U ovom radu prikupljamo etnomedicinsko znanje o uroterapiji i utvrđujemo njihovu povezanu simboliku u Španjolskoj. Pregled literature i metoda studije slučaja provedeni su radi prikupljanja lijekova na bazi urina i izravne analize simboličkih sustava. Uroterapija je raširena u španjolskoj narodnoj medicini. Među 204 prikupljena lijeka prevladavaju oni koji se odnose na liječenje bolesti ili kožnih stanja (63%). Zabilježeni su lijekovi za liječenje kožnih bolesti kao što su ekcemi, chloasma (melasma), alopecija itd., za liječenje ili ublažavanje opekline, ozeblina, rana ili ispucale kože te za liječenje ugriza zmija otrovnica. Većina prikupljenih lijekova ima povezanu prirodnu simboliku, temeljenu na lokalnim tradicijama i prenošenju empirijskog inicijalnog znanja. Uporaba urina u Španjolskoj posljedica je interakcije dviju vrsta prakse: lokalne i tradicionalne uroterapije, ruralne s utilitarnom svrhom, te tehničke uroterapije, ograničene na urbanu sredinu i naturopatsku medicinu.

Ključne riječi: ljudski urin; narodni lijekovi; simbolizam; pregled; Španjolska.