Dermatological Referred Consultations from Various Departments of Baghdad Medical City to Baghdad Center of Dermatology and Venereology

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ABSTRACT:

BACKGROUND:

Dermatological problems are common in patients with other medical problems, they may provide clue to the diagnosis of medical diseases.

AIM OF THE STUDY:

To study consultations from different departments of Baghdad Medical City to Baghdad Center of Dermatology and Venereology regarding frequency causes of referral and final dermatological diagnosis, and to design a typical consultation form.

PATIENTS AND METHODS:

This is a cross – sectional observation study, it was conducted at Baghdad Center of Dermatology and Venereology, Baghdad Medical City, Iraq from October 2018 to January 2020 (15 months).

All consultations from other departments of Baghdad Medical City to dermatological department were included in the study.

RESULTS:

A total number of 998 consultations out of 39540 patients attended dermatological department during the same period of study (3% from total patients that consulted the department during this period), 694 (69.5%) patients were outpatients while 304 (30.5%) patients were inpatients. The age range was from 1day to 86 years old with a median age of 26. The most common consultations were referred from pediatric department with total number 256 (25.6%) patients, rheumatology department 220 (22%) patients followed by hematological department 157 (15.7%) patients. The most common dermatological disease group that was diagnosed by dermatologists was eczematous disorders 107 (10.7%) patients, viral infections 106 (10.6%) patients followed by parasitic infestation 87 (8.7%) patients. Scabies represents the most common disease that was referred to dermatological department (8.3% of all consultations).

CONCLUSION:

Consultations were referred from 23 different departments; the most common ones were from pediatric department. Dermatological opinion helped to reach the final dermatological diagnosis among referred patients.

KEYWORDS: consultation, dermatology, eczematous, viral, parasitic

INTRUDUCTION:

A referral is a process in which a health worker at one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the help of a better or differently resourced facility at the same or higher level to assist in (WHO definition).[1]

A consultation involves another health professional (most often a specialist physician) performing a specific diagnostic or therapeutic task without transfer of responsibility for the patient's care or ongoing management of a specific problem. A referral involves sending a patient for the ongoing management of a specific problem with the expectation that the patient will continue to see the original physician for the overall coordination of care [2]

Poor communication in the consultation and referral process can lead to: 1) poor continuity of care, 2) delayed diagnoses, 3) polypharmacy, 4) unnecessary testing and 5) repetition of investigations. All these can reduce quality of care while increasing health care costs and litigation risk. [3]

Studies have shown that both primary care physicians and specialists are often dissatisfied with the quality and content of written communication.

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Specialists have most often expressed concerns regarding the frequent absence of an explanation for the referral, as well as lack of clinical findings, test results and details of previous treatments [4]. On the other end, referring physicians report and receiving feedback from consultants found in only 55% of cases. When they do receive feedback, it may lack essential information needed for the patient's ongoing management [5].

It is important to recognize that the content of letters needs to meet the needs of the target audience – the specialist, in this case. Different specialties and different patient problems will require the supply of different amounts and types of information. Audits of consultation/referral request letters and surveys of recipient specialists highlight the necessary or 'core' content of letters [6]

Demographic data, Initial statement outlining reason for referral, History of the presenting problem, Past history, Psychosocial history, Medications, Allergies, Physical findings, Investigations, Outline management to date, Clinical impression, Outline expectation(s).

Writing experts recommend that authors limit the length of paragraphs to fewer than 5 sentences and limit the number of words that have more than 3 syllables. Limiting one idea per sentence and one topic per paragraph will also make letters easier and faster to read. Structuring letters with the use of headings and lists can also make information easier to retrieve.[6]

Electronic communication and data-processing are by no means a new phenomenon in general practice. The next logical step might be to include telemedicine, i.e. images, sound, video and other kinds of medical information in the communication process.[7]

Telemedicine is the application of telecommunication technology for the purpose of diagnostics, planning and guiding of therapy and education. With the possibility to gain fast access to specialty knowledge, telemedicine makes it possible to deliver health care to patients at distant sites.[8]

Dermatology practice takes place mainly in the outpatient setting. However, several referrals are made to dermatology departments by other specialties on a daily basis for proper patient management in the hospital settings. The knowledge of dermatology among non-dermatologists is believed to be very poor [9]. Patients admitted to non-dermatology units may often have numerous skin lesions besides the systemic disease for which they are hospitalized or they were visiting non dermatological consultations [10]. The dermatoses may be associated with significant morbidity and at times mortality [11].These patients with dermatoses often require expert dermatology consultation. The interdepartmental referral not only helps in patient care but also improves the diagnostic acumen and clinical knowledge of the clinician [12].

Dermatology is often thought of as a non-acute, outpatient centered specialty. It has been reported, however, that approximately 5% to 8% of all emergency department visits are due to skin complaints.[13]

PATIENTS AND METHODS:

This is a cross – sectional observation study. It was conducted at Baghdad Center of Dermatology and Venereology, Baghdad Medical City, Baghdad, Iraq from October 2018 to January 2020 (15 months).

All consultations from other departments of Baghdad Medical City to dermatological department were included in the study.

Detailed information included gender, age, department, underlying medical condition, suggested dermatological diagnosis by non-dermatological physicians and final dermatological diagnosis, and any diagnostic procedures including biopsy, Wood's lamp, iodine starch test, surgical removal, swap for culture and sensitivity, KOH examination.

Dermatological disease groups were categorized based on the textbook (Dermatology) [14].

RESULTS:

A total number of 998 consultations (3%) out of 39540 patients visited the center of dermatology in Baghdad medical city during the period of 15 months. (Around 66 consultations per month and two consultations per day).

A number of 694 (69.5%) patients were outpatients while 304 (30.5%) were inpatients.

A number of 872 (87.3%) dermatological diseases were not diagnosed by departments from where they were referredwhile 126 patients (12.7%) were diagnosed by their referring departments.

Rang of age was from 1 day to 86 years old. Their median age was (26).

A number of 569 (57%) patients were females and 429 (43%) were male.

The most common consultations were referred from pediatric department with a total number of 256 (25.6%) patients, rheumatology department 220 (22%) patients followed by hematological department 157 (15.7%) patients.

Table 1 demonstrates all consulting departments and the most common dermatological disease for each one.

AIM OF CONSULTATION:

The aim of consultations was classified into:

1- To reach the diagnosis.
2- To confirm the diagnosis.
3- Opinion regarding management.

1- The aim of referral of 620 cases (62.1% of all consultations) was to reach the diagnosis , 601 cases (96.9% of this group) were diagnosed, while a list of differential diagnosis was suggested to the other 19 cases (3% of this group), which represents 1.9% of all consultations.
2- The aim of referral of 351 cases (35.2% of all consultations) was to confirm the diagnosis. The diagnosis of 252 cases (71.8% of this group) was incorrect and dermatologists corrected it, while the diagnosis of 99 (28.2% of this group) cases was correct and dermatologists confirmed it.

3- Only 27 cases (2.7% of all consultations), their aim of referral was to take dermatological opinion regarding the management and the diagnosis was already established. All were referred from rheumatology department.

Overall, the diagnosis was established for 853 cases (85.5% of all consultations).

Underlying medical conditions of the referred patients:

The total number of referred patients that were already suffering from underlying medical diseases was 903 (90.5%) patients, while the other 95 (9.5%) patients suffered from only dermatological disease at the time of referral.

Malignancy was the most common medical disease 204 (20.4%) patients , connective tissue diseases (SLE , dermatomyositis , systemic sclerosis) 105 (10.5%) patients,while101(10.1%) patients were suffering from these chronic illnesses (diabetes mellitus, chronic kidney disease, cardiovascular disease) .

Dermatological diagnosis:

The most common dermatological disease group was eczematous disorders 107 (10.7%) patients, viral infections 106 (10.6%) patients followed by parasitic infestation 87 (8.7%) patients.

The most common eczematous disorder was contact dermatitis 35 (32.7% of eczematous disorders) patients, atopic dermatitis 24 (22.4% of eczematous disorders) patients followed by seborrheic dermatitis 14 (13% of eczematous disorder) patients.

The most common viral infection was warts 24 (22.6% of viral infected cases) patients , herpes simplex 21 (19.8% of viral infected cases) patients followed by molluscum contagiosum 18 (17% of viral infected cases) patients.

The most common parasitic infestation was scabies 83 (95.4% of parasitic infected cases) cases, **which was the most common disease that referred to dermatological department (8.3% of all consultations).**

Fifty five cases of scabies were inpatients (18% of inpatient referral) and 28 cases were outpatients (4% of outpatients' referral) with P value 0.00001.

List of differential diagnosis was suggested for only 19 cases (1.9% of all consultations).

Table 2 shows details about dermatological diseases of referred patients.

Interventions that have been done for referred patients:

Biopsies have been taken from 44 (4.1%) patients , Wood's lamp examination has been performed for 65 (6.5%) patients, surgical interventions have been performed for 28 (2.8%) patients, KOH examination has been performed for 25 (2.5%), while swap for culture and sensitivity has been done for 10 (1%) patients.

Only 308 (30.9%) consultations included detailed informative history about patient's underlying medical condition, past history. Only 90 (9%) consultations contained investigations that have been done for patients, while the other 908 (91%) consultations did not include investigations in their papers.

Table 1: Consulting departments.

Department	No.	%	Most common dermatological disease	No.	%
Pediatric	256	25.65%	Eczematous disorder	44	17.2%
Rheumatology	220	22.04%	Autoimmune connective tissue disorder	35	15.9%
Hematology	157	15.73%	Viral infection	20	12.7%
Internal medicine	156	15.63%	Drug reaction	13	8.3%
Neurology	33	3.31%	Eczematous disorder	5	15.2%
Oncology	32	3.21%	Parasitic infestation (scabies)	7	21.9%
Gynecology	22	2.20%	Viral infection	4	18.2%
General surgery	20	2.00%	Eczematous disorder (contact dermatitis)	5	25.0%
GIT	16	1.60%	Viral infection	3	18.8%
Outpatient clinic	14	1.40%	Protozoal infection (leishmania)	5	35.7%
ICU	14	1.40%	Dermatoses resulting from physical factors	8	57.1%
Orthopedic surgery	10	1.00%	Eczematous disorder	4	40.0%
Maxillofascial	9	0.90%	Vesiculobullous diseases	3	33.3%
Emergency	7	0.70%	SJS/TEN	4	57.14
Respiratoy medicine	6	0.60%	Eczematous disorder	2	33.33%
Urosurgery	5	0.50%	Parasitic infestation (scabies)	2	40%
Psychiatry	5	0.50%	Adnexial disorders	2	40%
Plastic surgery	5	0.50%	Pyogenic granuloma	2	40%
Ophthalmology	4	0.40%	Eczematous disorder	2	50%
ENT	3	0.30%	Viral infection	3	100%
Cardiovascular surgery	2	0.20%	Viral infection	2	100%
Radiotherapy	1	0.10%	Radiodermatitis	1	100%
Pain management	1	0.10%	Viral infection (herpes zoster)	1	100%
Total No.	998	100%			

Table 2: Dermatological diseases of referred patients.

Final dermatological diagnosis	No.	%	Most common dermatological disease	No.	%
Eczematous disorder	107	10.72%	Contact dermatitis	35	32.7%
Viral infection	106	10.62%	Wart	24	22.6%
Parasitic infestation	87	8.72%	Scabies	83	95.4%
Drug reaction	54	5.41%	Maculopapular drug eruption	15	27.8%
Autoimmune connective tissue diseases	51	5.11%	SLE	19	37.3%

Fungal infection	47	4.71%	Dermatophytosis	19	40.4%
Papulosequamous disorders	44	4.41%	Psoriasis	25	56.8%
Adnexial diseases	40	4.01%	Acneiform rash	9	22.5%
Bacterial infection	40	4.01%	Cellulitis	8	20%
Vascular disorder	38	3.81%	Vasculitis	11	28.9%
Urticaria	31	3.11%	Acute urticaria	22	70.9%
Insect bit	30	3.01%	Insect bit	30	100%
Dermatoses resulting from physical factors	29	2.91%	Milaria rubra	7	24.1%
Skin neoplastic disorder	29	2.91%	BCC	4	13.8%
Pruritus	23	2.30%	Prurigo nodularis	10	43.5%
EM	23	2.30%	EM minor	12	52.2%
Appendigial (hair and nail) disorders	20	2.00%	Telogen effluvium	11	55%
Protozoal infection	20	2.00%	Leishmania	20	100%
Differential diagnosis	19	1.90%	-	-	-
Vesiculobullous diseases	18	1.80%	Pemphigus vulgaris	8	44.4%
Genodermatosis	18	1.80%	Collodion baby	3	16.7%
Pigmentary disorders	18	1.80%	Vitiligo	8	44.4%
Oral diseases	18	1.80%	Aphthus ulcer	8	44.4%
Palmoplantar dermatosis	17	1.70%	Psoriasis	8	47.05%
Others	71	7.11%	Xerosis	10	14.08%
Total no.	998	100%			

DISCUSSION:

Cutaneous manifestations are often important markers for diseases of internal organs.[15] Only few studies have highlighted the role of dermatologists in providing referral services to other departments.

The referral pattern from different departments has varied in different studies possibly due to different pattern of dermatoses seen in different regions.

In this study, dermatologists included all referred patients from other departments including outpatients and inpatients referral, while most of other studies were including only inpatients or outpatients referral, only one study in India Arora etal [16] included inpatients and outpatients referral. Al-hamamy etal[17] performed a study that included both outpatient and inpatients but for consultations from pediatric departments only.

The most frequent consultation in the present study was from pediatric department 256 (25.6%) patients , rheumatology department 220 (22%) patients followed by hematological department 157 (15.7%) patients . The number of pediatric consultations is close to Al-hamamy et al [17] which were 207 in duration of 14 months. The present study shows that pediatric consultations is the most common referred consultation to the dermatological department while other studies [16,18-21] show that internal medicine is the most common one .This is because this study separated medical department into (internal medicine, rheumatology, hematology, respiratory medicine, and GIT center) and if we consider these departments as one, it will be the most common referring department 555 (55.6%) cases, this percent is almost similar to that of Arora et al (49.8%) [16] , Hardwick et al in South Africa (45.6%)[18] , Itin et al in Switzerland (50%)[20], Fischer et al in Germany (42.8%)[21]. On the other hand, the result of this study regarding pediatric department is the most frequent one which can be attributed to the presence of

separated hospital for pediatric patients in Baghdad medical city without presence of dermatological clinic in this hospital and many of pediatric patients visiting this hospital had dermatological findings and many pediatricians are not acquainted in the diagnosis of dermatological diseases.

The most frequent dermatological disease group that has been diagnosed in this study was eczematous disorders (n=107, 10.7%) while the percentage of eczematous disorders in Mancusi et al in Brazil [22] and Antic et al in Switzerland[23] was 16.6% and 12.6% respectively, but in this study it represents the most frequent dermatological diagnosis unlike other studies in which the infectious disorders were the most common [20-22] . This is because in this study the infectious disorders were divided into separated entities as viral, parasitic, fungal, protozoal and bacterial infections, and if we add all these subdivisions, the percentage of infectious disorders will be the most frequent one (n=287, 28.8%), which is close to that in other studies: Intin et al (21.7%), Mancusi et al (25.8%) and Fischer et al (24.4%) [20-22].

The most common eczematous disorders were contact dermatitis (n=35, 32.7%), atopic dermatitis (n=24, 22.4%) followed by seborrheic dermatitis (n=14 , 13%) which is almost similar to that of Mancusi et al [22] .

The most common viral infection was wart (n=24, 22.6%) which is expected because HPV is a common virus with a prevalence of up to 30% [24]. Herpes simplex was the second frequent viral infection referred to dermatological department (n=21, 19.8%) followed by molluscum contagiosum (n=18, 17%). These three viral infections are the most common viral diseases that attend dermatological clinic[25].

The most common parasitic infestation was scabies (n=83 , 95.4%), which was the most common disease that was referred (represents 8.3% of all consultations) unlike Mancusi et al [22] which was 0.3% only. Fifty five cases of scabies were inpatients (18% of inpatient referral) and 28 cases were outpatients (4% of outpatients referral) with P value 0.00001, this indicates that scabies is a common cause of referral and hospital admission is an additional source of infestation.

Dermatological department was useful in diagnosing 85.5% (n= 853) of consultations, while the other consultations were either already diagnosed and dermatologists confirmed it or aided them to reach the correct management. List of differential diagnosis was suggested for 19 (1.9% of all consultations) cases.

CONCLUSION:

- The most common branch that sought the help of dermatological department was the pediatric department.
- The most common dermatological "disease group" that was referred to dermatological department was eczematous disorders, while the most common "disease" that was referred was scabies.
- The most common underlying medical condition was malignancy.
- Dermatologists in dermatological center at Baghdad medical city yielded important implications and clues regarding the management of most referred diseases.
- Most of consultations don't contain detailed history about patient's medical conditions or investigations that have been done for them.

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