นิพนธ์ต้นฉบับ

ลักษณะทางคลินิกของผู้ป่วยโรคเกาต์เทียม ในโรงพยาบาลจุฬาลงกรณ์

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Between 1976 and 1985, 34 cases of definite pseudogout seen at Chulalongkorn Hospital, Bangkok, were studied. Among those, females were more predominant than males (72.6 : 29.4%). The peak age at onset of disease was after age 60, as was observed in 76.4 percent of the cases. Monoarticular arthritis was commonly presented in both the initial and subsequent attacks of disease. The most commonly involved joint was the knee (70.6%), followed in frequency by the ankle (32.4%), wrist (11.8%), first metatarsophalangeal joint (8.8%), elbow (5.9%) and shoulder (2.9%). Provocative factors were present in 38.2 percent of all cases, the most common being surgical operation; also 41.2 percent of the patients showed evidence of other diseases, particularly hypertension and diabetes mellitus. Most of them responded well to non-steroid anti-inflammatory drugs and steroidal preparations but colchicine therapy gave unpredictable result.

In conclusion, the clinical features of our patients with pseudogout were similar to those reported elsewhere.

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ระหว่างปี พ.ศ. 2519 ถึง 2528 มีผู้ป่วยโรคเกาต์เทียม จำนวน 34 ราย โดยการวินิจฉัยจากการตรวจพบผลึกเกลือแคลเซียมไพโรฟอสเฟตไดไฮเดรทในน้ำไขข้อ ที่ได้รับไว้รักษาในแผนกอายุรกรรม โรงพยาบาลจุฬาลงกรณ์ พบว่าผู้ป่วยส่วนใหญ่เป็นเพศหญิง (70.6%) และโรคนี้มักจะพบได้ในผู้ป่วยที่มีอายุสูงกว่า 60 ปี (76.4%) อาการทางข้อที่พบในระยะเริ่มแรกและในระยะการดำเนินของโรค มักจะเป็นการอักเสบของข้อแบบข้อเดียว ข้อเข่ามักจะเป็นข้อที่พบว่ามีการอักเสบได้บ่อยที่สุด (70.6%) รองลงไป ได้แก่ ข้อเท้า (32.4%) ข้อมือ (11.8%) ส่วนข้อหัวแม่เท้าพบได้เพียงอัตราร้อยละ 2.9 ของผู้ป่วยทั้งหมด ภาวะกระตุ้นที่ทำให้การอักเสบของข้อกำเริบขึ้น พบได้ในอัตราร้อยละ 38.2 ของผู้ป่วย ภาวะกระตุ้นที่พบได้บ่อยที่สุดคือภาวะหลังการผ่าตัด ในโรคนี้อาจจะพบว่ามีโรคอื่น ๆ ร่วมด้วยได้ถึงร้อยละ 41.2 ของผู้ป่วย โรคร่วมที่พบได้บ่อย ได้แก่ โรคความดันโลหิตสูงและโรคเบาหวาน การรักษาด้วยยาจำพวกลดการอักเสบกลุ่มไม่ใช่สเตรอยด์หรือกลุ่มยาจำพวกสเตรอยด์มักจะได้ผลดีมาก แต่การรักษาด้วยยาโคชิซีนให้ผลการรักษาไม่แน่นอน

โดยสรุป ลักษณะทางคลินิกของโรคเกาต์เทียมในผู้ป่วยที่ได้ทำการศึกษาใน ร.พ.จุฬาลงกรณ์ มีลักษณะคล้ายคลึงกับผู้ป่วยที่รายงานในต่างประเทศ

Pseudogout is characterized by intermittent arthritis caused by deposits of calcium pyrophosphate dihydrate (CPPD) crystals. It is often associated with calcification of intraarticular structures, particularly that of articular cartilage; such manifestions are called chondrocalcinosis.[1,2] The clinical syndrome has been recognized 25 years ago when CPPD crystals were first indentified in synovial fluid.[3,4] Chondrocalcinosis, the metabolism of pyrophosphate and the clinical features of pseudogout (calcium pyrophosphate deposition disease or pyrophosphate arthropathy) have been extensively studied[2,3,5,6-17].

This study presents the clinical feature of cases of pseudogout seen at Chulalongkorn Hospital in Bangkok, Thailand, during the period January 1976 to December 1985.

Patients and methods

Thirty-four patients with pseudogout were studied. All were in-patients of the hospital's Medical Service. The diagnosis was made according to revised diagnostic criteria for pseudogout,[18] particularly the identification of CPPD crystals in joint fluid using compensated polarized light microscopy. The clinical features included sex, age at onset, pattern of articular manifestation, the presence of provocative factors and associated diseases, prevalence of chondrocalcinosis and response to treatment.

Results

The 34 cases were diagnosed as definitely having pseudogout upon the identification of CPPD crystals in joint fluid. The occurrence of pseudogout was predominant in females (24 cases or 70.6 percent of the total); the peak age at onset was noted in patients over age 60 who accounted for 76.4 percent of the total. For the remaining cases, the age at onset was between 30 and 59 years as shown in table 1.

Table 1 Age and sex distribution of 34 cases of pseudogout.

	No. of patients	Percent
Sex Male	**10**	**29.4**
Female	**24**	**70.6**
Age at onset (years)		
0 – 19	–	–
20 – 29	–	–
30 – 39	4	11.8
40 – 49	2	5.9
50 – 59	2	5.9
60+	26	76.4

Table 2 shows the pattern of initial articular manifestation : monoarticular arthritis (82.4%) and oligoarticular arthritis (17.6%). There was no evidence of tenosynovitis. The most commonly involved joint initially was the knee (70.6%) followed in frequency by the ankle joint (17.6%), first metatarsophalangeal joint or podagra (8.8%), wrist joint (8.8%) and elbow joint (2.9%), as shown in table 3.

Table 2 Pattern of initial articular manifestation of pseudogout.

Manifestation	No. of patients	Percent
Monoarticular	28	82.4
Oligoarticular	6	17.6
Tenosynovitis	–	–

Table 3 Initial joint involvement in cases of pseudogout.

Joint	No. of patients	Percent
Knee	24	70.6
Ankle	6	17.6
1st MTP	3	8.8
Wrist	3	8.8
Elbow	1	2.9

Table 4 shows pattern of articular manifestation during the times of examination. The first attack of arthritis was observed as often as recurrent attacks; however, the prevalence of monoarticular arthritis (64.7%) was more common than of oligoarticular arthritis (35.3%). The most commonly involved joint was the knee (70.6%) as shown in table 5.

Table 4 Pattern of articular manifestation during time of examination.

	No. of patients	Percent
First attack	17	50
Recurrent attack	17	50
Monoarticular	11	64.7
Oligoarticular	6	35.3

Table 5 Joint involvement during course of disease in cases of pseudogout.

Joints	No. of patients	Percent
Knee	24	70.6
Ankle	11	32.4
Wrist	4	11.8
1st MTP (Podagra)	3	8.8
Elbow	2	5.9
Shoulder	1	2.9

Provocative factors, which aggravated acute attacks of arthritis were present in 38.2 percent of the total number of cases : surgical operations (17.6% of the total), medical illness of mental stress (14.7%), trauma (8.8%) and consumption of alcohol (2.9%) (table 6).

Table 6 Provocative factors in acute attacks of pseudogout.

	No. of patients	Percent
Present	13	38.2
Surgery	6	17.6
Illness/stress	5	14.7
Trauma	3	8.8
Alcohol	1	2.9

As shown in table 7, associated diseases were present in 41.2 percent of all the cases. Hypertension (20.6% of the total) was the most frequently associated disease followed in frequency by diabetes mellitus (14.7%), chronic renal failure (5.9%), gallstone (2.5%), cerebrovascular accident (2.9%), hypothyroidism (2.9%) and multiple myeloma (2.9%).

Table 7 Associated disease in patients with pseudogout.

	No. of patients (34)	Percent
Persent	14	41.2
Hypertension	7	20.6
Diabetes mellitus	5	14.7
Congestive heart failure	2	5.9
Chronic renal failure	2	5.9
Gallstone	1	2.9
CVA	1	2.9
Hypothyroidism	1	2.9
Multiple myeloma	1	2.9

Bloody effusion was found in one case. Chondrocalcinosis was evident in 76.5 percent and 8.8 percent of all cases showed evidence of periarticular calcification; however, 14.7 percent of the total showed no evidence of calcification.

Table 8 shows the result of treatment. Nearly all cases responded well to non-steroidal antiinflammatory drugs (NSAIDS) and also steroidal preparation; however, only two of four cases treated with colchicine responded favorably.

Table 8. Results of single drug treatment in cases of pseudogout.

	No. of patients	Favourable response	
		No. of Patients	Percent
Oxyphenbutazone	9	8	88.9
Indomethacin	8	7	87.5
Piroxicam	5	5	100
Ibuprofen	1	1	100
Phenylbutazone	1	1	100
Colchicine	4	2	50
ACTH	4	3	75
Dexamethazone	2	2	100
Intraarticularsteroid injection	4	4	100

Discussion

Pseudogout is not as common as gouty arthritis. In our present study and those of others,[2,5,6,15] it occurred more frequently in females (59-73%) than in males; however, a few series showed that it was more frequently evident among males than females.[3,7,9.11] Thus in cases of pseudogout differences between the sexes are not as prominent as those with gouty arthritis, in which males (90-95%) are more often afflicted.[19,20] As previously reported, the peak age at onset of disease was after the sixth decade of life[2,3,6,7,9,14,16] It may be said that pseudogout generally is an arthritis of the elderly; however, the disease is also found among young people, particularly those with heriditary or familial chondrocalcinosis.[13,21] Thus, familial chondrocalcinosis should be seriously considered when pseudogout occurs in the young.

Acute monoarticular arthritis is the main feature of pseudogout with regard to both the initial and subsequent articular manifestation. As previously reported, the knee (70-90%) was the most commonly involved joint[1-3,7,11] as it was in the present study. In cases of acute arthritis of the knee joint in elderly females, pseudogout should be at the top of the list of differential diagnoses for arthritis.

The presence of provocative factors as well as the presence of associated disease were found; in particular, the provocative factors were surgery and illness or mental stress, as reported previously.[1,6,9,10,14]

Chrondrocalcinosis and periarticular calcification are the hall marks of this disease; they were evident in more than 90 percent of the reported cases;[6,11,14,15,17] however, there was no evidence of calcification in 14.7 percent of the patients in the present study.

The occurrence of bloody effusion in patients with pseudogout has been reported previously but is not common; in this study, there was only one case which showed bloody effusion.[3,22]

As reported previously, acute pseudogout is easily controlled by non-steroidal anti-inflammatory drugs but colchicine therapy has been shown to give unpredictable results[18,23]

In conclusion, pseudogout was found to be more common among females, particularly those over 60 years of age, with acute monoarticular arthritis of the knee joint and condrocalcinosis. These findings are similar to those reported elsewheres.

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