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Back Pain and Occupation: Preliminary Report

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背痛與職業——初步報告

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本篇是利用1988年 4月中到1988年 5月中，台塑關係企業員工體檢時，以問卷方式進行調查背痛的各種情形。

1959位接受調查中 155位有背痛。其中男性 137位，女性18位。他們平均年齡爲36.9歲，以31歲到40歲病患最多64位 (41.3%) 。背痛種類以坐骨神經痛最多，共66位 (43%);其次爲下背痛61位 (39.4%) 。職業方面，以從事粗重工作者最多有26位 (11.1%) 。但工作時的疼痛，則以持續坐引起背痛病人爲最多73位 (47%) 。背痛者大部份平常都缺乏運動，共 117位 (75%) 。背痛時間以超過 1個月爲最多，90位 (58.1%) 。因背痛導致失眠者並不多，祇有33位(21.3%)。病人由於背病而接受復健治療則僅有 7位 (4.5%)。

關鍵詞：背痛、職業傷害

前　言

腰酸背痛是門診常見的疾病，曾有報告說，平均有高達50～80%一般民衆及50%的勞工朋友，有過腰酸背痛的經驗 [1,2]。而一年內，因背痛而引起工作能力減低的日子，平均爲28.6天，可見其嚴重性。已往背痛與職業的關係，由於影響因素很多，有些我們瞭解，有些我們還不瞭解。但在台灣追求提高生產力的今天，這是一個值得探討的問題，本篇主要目的是希望增加瞭解及能找出預防之道。

材料與方法

本篇是利用1988年 4月中到1988年 5月中，台塑關係企業員工作體檢時，以問卷方式進行調查背痛的各種情形。本篇對下背部問題的定義爲：下背部有痛、僵硬、麻痺、抽痛等。細分爲坐骨神經痛、腰痛、其它背痛等。我們是採用 Dr. Hilkka 分類 (附件 1)[3]。

結　果

結果共1959位接受問卷調查，其中 155位有背部問題 (佔 7.9%) (表二)。性別方面，分別是男 137位，女18位，他們年齡平均爲36.9歲，其中以31歲到40歲病患最多，共64位 (41.3%) (表一)。受訪者產生背部問題以從事搬重工作最多，共11.1%。

工作時發生疼痛，以持續保持坐姿者最多共73位(47%)，背痛性質，以坐骨神經痛最多，共66位 (42.6%)，其次爲腰痛61位 (39.4%) (表三) 。常坐病人以腰痛最多佔30位，而常站病人則以患坐骨神經痛爲最多佔26位。

病人大部份平常都缺乏運動，共 117位 (75%) (表四)，而坐骨神經痛病人，平常從事運動以慢跑爲主約佔該人數的1/3。

而背痛的時間，以超過 1個月爲最多，共90位 (58.1%) (如表五)。因背痛而引起失眠的病人並不多，約有33位 (佔21.3%) ，但其中坐骨神經痛佔22位 (如表六)。

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病人由於背痛而接受復健治療祇有 7位　　位 (40%) (如表七)。(4.5%)，大部份病人以西藥藥物治療爲主共62

Table 1: Back Trouble Pattern in Relation to Age:

Age \ Back trouble pattern	Sciatica	Lumbago	Other Low back pain	Total
20-30	19	15	9	43(27.8%)
31-40	23	26	15	64(41.3%)
41-50	21	16	4	41(26.5%)
51-60	3	4	0	7(4.5%)
Total	66(42.6%)	61(39.4%)	28(18%)	155 (100%)

Average: 36.9±8.34

Table 2: Back Trouble Pattern in Relation to Occupation

Occupation \ Back trouble pattern	Sciatica No: %	Lumbago No: %	other Low back pain No: %	Total No: %
Heavy labors n=235	15(6.4%)	10(4.3%)	1(0.43%)	26(11.1%)
Light labors n=1567	50(3.2%)	45(2.9%)	25(1.5%)	120(7.6%)
Clerical workman n=157	1(0.6%)	6(3.8%)	2(1.2%)	9(5.6%)
Total	66(3.4%)	61(3.1%)	28(1.4%)	155(7.9%)

n=1959

Table 3 Back Trouble Pattern in Relation to Posture:

posture \ Back trouble pattern	Sciatica	Lumbago	Other Low back pain	Total
Standing	26	18	7	51(33%)
Sitting	28	30	15	73(47%)
Forward bending	12	13	6	31(20%)
Total	66(43%)	61(39%)	28(18%)	155(100%)

Table 4: Back Trouble Pattern in Relation to Exercise

Back trouble pattern \ Exercise	+	-	Total
Sciatica	18	48	66(43%)
Lumbago	10	51	61(39%)
Other back pain	10	18	28(18%)
Total	38(24.5%)	117(75.5%)	155(100%)

Table 5: Back Trouble Pattern in Relation to the Duration of Previous Back Pain in the Last One Year

Duration \ Back trouble pattern	Sciatica	Lumbago	Other Low back pain	Total
without back pain	1	1	0	2(1.3%)
1-7 days	2	9	2	13(8.4%)
8-30 days	7	11	9	27(17.4%)
> 30 days	44	34	12	90(58.1%)
every day	12	6	5	23(14.8%)
Total	66(43%)	61(39%)	28(18%)	155(100%)

Table 6: Back Trouble Pattern in Relation to Insomnia

Back Trouble Pattern \ Insomnia	+	-	Total
Sciatica	22	44	66(43%)
Lumbago	8	53	61(39%)
Other back pain	3	25	28(18%)
Total	33(21.3%)	122(78.7%)	155(100%)

Table 7: Back Trouble Pattern in Relation to Treatment Methods

Treatment method \ Back trouble pattern	Sciatica	Lumbago	Other Low back pain	Total
Rehabilitation	4	2	1	7(5%)
Herb drugs	11	2	1	14(9%)
Manipulation	3	2	0	5(3%)
Physician	28	22	12	62(40%)
Without Treatment	20	33	14	67(43%)
Total	66(43%)	61(39%)	28(18%)	155(100%)

討 論

腰酸背痛是勞工朋友常患的疾病，過去對腰椎的生物力學研究很多，但對職業與背痛之間的關係，還不是很清楚，因爲影響的因素太多 [3]。

國外文獻報告年齡與背部問題，一般背痛是發生於中年較多，而老年人較少。但對勞工而言，是以35歲到55歲最多，這時候正是他們生產力最旺盛的時候 [2]。與本篇所得的結果一致。

在職業方面，以從事搬重物爲主要工作的勞工，所產生下背部問題較多，與國外報告一致 [4]。他們以患坐骨神經痛居多，探討其原因，可能爲體力勞動者比從事於輕便工作者，較容易產生脊椎退化現象 [3]。而脊椎退化又比較容易引起椎盤退化，椎盤退化會容易導致椎盤突出現象 (5)。

工作時，以採用坐姿爲主要姿勢的背痛病人最多，與 Cox所報告近似 [6]。他認爲久坐的工作人員與從事於搬重物的工作人員，他們患背痛的機會是相同，因爲長期輕鬆駝背靜坐對腰椎是很大的負擔。據實驗報告，此種坐姿，腰椎間所受壓力會增加到體重的 1.85～2.75 倍 [7]，故如何保持正確坐姿教育很重要。Hilkka

指出大部份不良姿勢會導致腰椎軟組織病變，不管先前脊椎是否有病變[3]。

本研究中，大部份患者平常都缺乏適當運動。曾有報告指出，若人們日常有適當運動及身體體能不錯時，會有防止背痛的發生 [2]。運動以從事能增進背部肌肉等長耐力爲主，因若背部肌肉等長耐力好的時候，很少會發生背痛[8]。反之來說，不適當運動會引起背痛或加重背痛 [9]。我們坐骨神經痛的病人有 1/3病人以跑步爲主要運動，但跑步對椎間軟骨板突出或骨性關節炎所引起的疼痛，會有加劇作用[10]。應建議患者作適當修正。

值得驚訝的是，本篇的背痛患者已發生症狀超過30天的佔大多數，甚至有14.5%人已經天天都要忍受此種痛苦，可是卻僅有 5%病人接受復健治療，比中藥治療 (9%)還要少，而且竟有43%病人對腰痛完全不去診治。可見職業傷害的預防與治療在此地必須加強宣導。國外則相當重視以器械分析工作者的活動情形給予職前訓練，以有效地減少背痛等職業傷害。

本篇研究僅爲一簡單問卷式調查，並未將所有調查者均作詳細檢查，進一步評估，所得結果僅能供參考之用。如何尋求有效方式預防職業傷害則是值得進一步探討的重要課題。

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Modified from Dr. Hilkka questionnaire:

(A) 1.age: 2.sex:
3.Occupation:
heavy labors: light labors: Clerical workman:
4.Postural
Standing: sitting: Forward bending:
5.Exercise: with without:
6.Insomnia: with without:
7.Treatment:
Rehabilitation: Herb drugs:
Manipulation: Physician:
Without treatment:

(B) Have you ever had trouble in your low back? (trouble means ache,pain, shooting pain, stiffness or numbness)
1. Never - skip the following questions concerning back
2. Occasionally
3. Often

What kind of low-back trouble have you had? Circle all alter-native fitting you.
1. Sciatic pain (means low-back pain radiating to the leg
2. Lumbago (means sudden attack of low-back pain)
3. Other low-back pain

(C) Estimate the number of days within the past 12 months during which you have had low-back trouble.
1. None
2. 1 - 7 days
3. 8 - 30 days
4. More than 30 days, not daily
5. Daily

(D) What kind of low-back trouble have you had within the past 12 months? (Circle all alternatives fitting you.)

1. Sciatic pain (means low-back pain radiating to the leg)
2. Lumbago (means sudden attack of low-back pain)
3. Other low-back pain

Back Pain and Occupation - Preliminary Report

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This survey was carried out for investigation in the relationship of back pain to occupation including heavy labor, light labor, and clerical workman. From the regular physical check up for Formosa Plastic employee, 1959 subjects were evaluated by questionaires.

Among them, 155 had back trouble, 137 cases were male and 18 cases female. Their age ranged from 20-60 year old. Most of them were between 31 to 41 year old.

The result of this sutdy showed that sciatica and lumbago were the most common back troubles. Most of them were heavy labors. But substaining sitting during working was also common posture to induce back pain. Most of them 75.5% did not have any daily exercise program. Seventy-three percent of them suffered from back trouble more than 1 months, but 43% did not receive any medical consultation.Only 5% of them ever visited rehabilitation.

This was a preliminary study by questionares, further delicate investigation including how to reduce work associated back problems should be made in the future.

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