BODY MASS INDEX AND BLOOD PRESSURE

Sir,

We reported in your journal a study of the effect of rest on initial blood pressures (BPs) of 140/90 mm Hg or less in 390 life assurance subjects.[1] We found that the mean BP fell with ten minutes rest in 70–80% and that the body mass index (BMI) was significantly lower in those subjects whose BP fell compared with those in whom it did not.

A study of hypertensive individuals in the US[2] showed some association between BMI and raised BP; the first author with another found significant correlations between BMI and BP in 640 subjects; but only with relatively low levels (0·2–0·3) of the correlation coefficient (r_S).[3] In view of these findings we examined the correlations of BP and BMI in our original 390 subjects together with another 217 in whom the BP was initially more than 140/90 mm Hg and a few more from recent observations, making 619 in all. Subjects on anti-hypertensive therapy were excluded, and we found one male in the first 390 for whom there was no height and weight data, reducing the final number to 618.

Five hundred and seven of the 618 were male (82%) and 111 (18%) were female. The mean age was 45·6 years (range 23–78) and the mean BMI 25·5 (range 17·2–46·0). As previously, BPs were measured initially and after ten minutes rest in the recumbent position. Only in two subjects was there a rise in BP after ten minutes rest. Their results have been included in the analysis.

Details of the BP readings are shown in Table 1. The negative values at the lower end of the BP ranges are entirely due to the two subjects whose BPs rose on resting.

Details of the correlations between BMI and BP are shown in Table 2. This shows that there is a trend for systolic and diastolic readings to be positively associated with BMI, i.e. higher BP readings are associated with higher BMIs. This positive relationship is seen for males only and for those of younger age but not in those aged 60 or over.

Changes in the BP with rest were not significantly correlated with BMIs being either negative or positive at a very low level. This seemed to be at variance with the results of the Mann-Whitney U test in our previous letter.[1]

In view of this we looked separately at the correlations

TABLE 1
Mean blood pressure and range (mm Hg) in 618 subjects.

Blood pressure type	Initial BP (mean)	Range	Final BP (mean)	Range	Change (initial minus final)	Range
Systolic	136·1	105–220	127·8	105–220	8·3	-10–35
Diastolic	81·2	60–120	77·2	55–120	4·0	-5–25

TABLE 2
Spearman correlations (r_S) between BP and BMI and significance (p).

Subjects	N	Blood pressure type											
		Systolic						Diastolic					
		Initial		Final		Change=		Initial		Final		Change=	
		r_S	p	r_S	p	r_S	p	r_S	p	r_S	p	r_S	p
overall	618	0·11**	0·008	0·14**	0·001	-0·034	0·39	0·15**	<0·001	0·18**	<0·001	-0·052	0·19
males	507	0·14**	0·002	0·16**	<0·001	0·001	0·98	0·16**	<0·001	0·20**	<0·001	-0·08	0·08
females	111	-0·07	0·49	-0·01	0·96	-0·18	0·058	0·07	0·49	0·08	0·41	0·04	0·66
aged ≤30 years	47	0·53**	<0·001	0·56**	<0·001	0·10	0·52	0·27	0·07	0·42**	0·003	-0·19	0·20
aged 31–40	176	0·24**	0·001	0·28**	<0·001	-0·004	0·96	0·21**	0·005	0·21**	0·005	-0·03	0·72
aged 41–50	185	0·12	0·09	0·18**	0·014	-0·06	0·39	0·21**	0·004	0·24**	0·001	-0·01	0·91
aged 51–60	148	-0·12	0·16	-0·08	0·30	-0·16*	0·05	0·06	0·46	0·18*	0·028	-0·13	0·11
aged >60 years	62	-0·02	0·85	-0·05	0·72	0·04	0·75	-0·01	0·94	-0·02	0·86	0·04	0·78
with initial BP ≤140/90	401	0·13**	0·008	0·21**	<0·001	-0·12*	0·016	0·20**	<0·001	0·27**	<0·001	-0·12*	0·013
with initial BP >140/90	217	-0·09	0·17	-0·07	0·31	0·025	0·71	-0·026	0·70	-0·07	0·28	0·07	0·34

Key: = initial minus final reading * significant at level of 0·05 ** significant at the 0·01 level or better

between BMI and BP in our original subjects with BPs of 140/90 mm Hg or less and those in the second group with BPs of more than 140/90 mm Hg. The results are shown in the last two lines of Table 2. It can be seen that whereas the drop in BP with rest in the first group (with initial BPs of 140/90 mm Hg or less) showed a significant (negative) correlation between this and BMI, in the second group (with initial BPs of more than 140/90 mm Hg) there was no significant correlation. This explains the results of the Mann-Whitney U test in the first group, but the reason for the difference between the two groups is not clear.

It is concluded that in our 618 subjects there was a weak relationship between BP and BMI confined to those who were male and to younger subjects (below the age of 60 years). This relationship was also confined to those with initial BPs of 140/90 mm Hg or less.

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ACKNOWLEDGEMENT

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MAKE PEACE NOT WAR

Sir,

In the editorial 'Make peace not war'[1] it is stated that 'The suicide bomber with explosives . . . in Israel . . . is intent on indiscriminate maiming and wholesale murdering'. The editorial thus queries the Palestinians need to violently resist.

The question we should be asking as physicians is not why do the Palestinians resist, or why do they resist by violent means. There are different questions before us:

> Why have we for 50 years abandoned the Palestinians to fight their battles alone, beleaguered by a coloniser whom they cannot fight alone?
>
> Why have we allowed the Palestinians to be battered, exiled from their lands, herded into camps – in villages and towns that have been turned into concentration camps – exposed to the mercy of a coloniser who freely draws upon the finances, political support and military arsenal of the world's greatest power?

In despair, marginalised, pauperised, facing extinction as a people, if the Palestinians now use the only defense they have – to weaponise their death – who is to blame? Israel has pursued policies in the Occupied Territories that would have invited economic sanctions, and even military intervention, against another country. America's capitulation to the Israeli lobby has meant that Israel can wage war against a civilian population – using bombs, rockets, tank shells, and artillery fire – with impunity. Abandoned, isolated, beleaguered and unarmed, a few Palestinian men and women have responded to this massive force by weaponising their own death, provoking still greater violence against themselves. But, paradoxically, this has also pushed world conscience into taking notice of the affront to humanity that is the Israeli Occupation.

Please do not belittle this supreme sacrifice by its dismissal in this editorial. To save lives, we must understand the root causes of conflict and address them properly.

A MUHANNA
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CHRONICITY, RHEUMATISM AND FIBROBLASTS

Sir,

Dr Buckley[1,2] and his team have reported that fibroblasts regulate the switch from 'acute resolving' to 'chronic persistent' inflammation. They focus on an extended immune system in which stromal cells play a key role in the transition from innate to adaptive immunity. They see a role for the fibroblast whereby it produces inappropriate immuno-regulatory molecules which direct resolving inflammation towards a chronic persistent inflammation. The data they report is of great importance, not only in its freshness of attitude but in the hope of future successful therapeutic intervention. The present communication provides support from the cellular standpoint for their view.

Some 34 years ago, Stuart and Davidson,[3–6] working in Edinburgh, studied cells derived in culture from human lymph node, spleen, thymus, peritoneal and synovial fluids. Macrophages were usually present together with large branching cells which were relatively less

phagocytic (Figure 1). The cytochemical profile of these cells, which are known as reticular cells, suggested an origin from mononuclear phagocytes, although electron microscopy showed some features in common with mechanocytes.[7] They may indeed be a variant or subclass of fibroblasts although our functional studies showed striking difference.

A significant finding was that when particles suitable for phagocytosis were added to this mixture of cells, macrophages laden with foreign material migrated towards these reticular cells and formed connections with their branching processes (Figure 2). Direct phase contrast cinemicrophotography revealed many contacts often broken and renewed. Antigenic material, yeast, bacteria, and antigen/antibody complexes, were observed moving down the processes from where they were stored in these large poorly phagocytic cells. The two cell types digested foreign material at quite different rates.

FIGURE 1

A reticular cell in culture showing branching processes. Giemsa. X 540. From AE Stuart and AE Davidson. The human reticular cell: morphology and cytochemistry (Figure 1). *Journal of Pathology* 1971 © John Wiley & Sons Limited. Reproduced with permission.

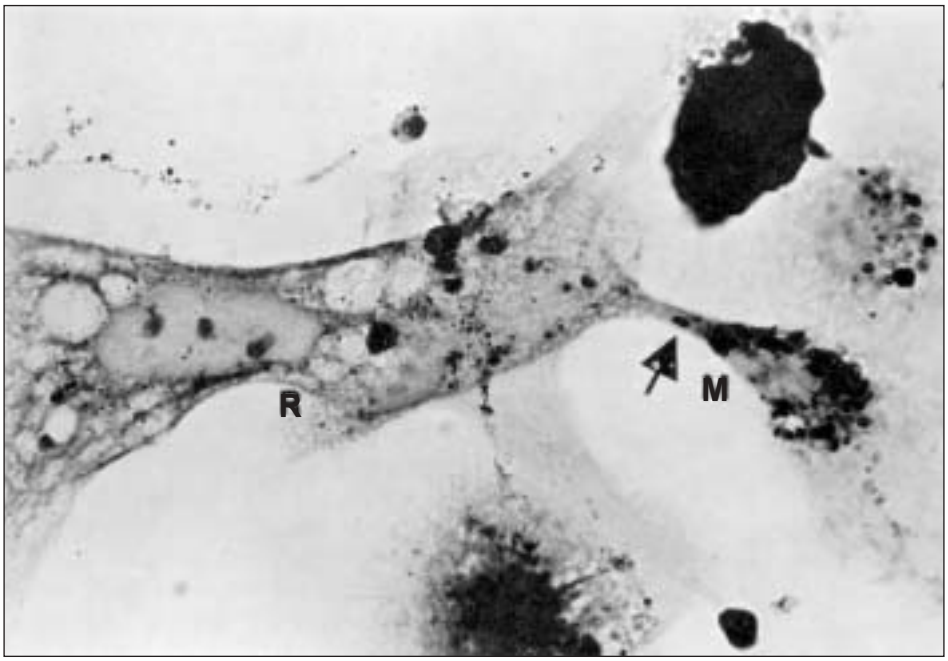

FIGURE 2

Culture of human spleen from patient with haemolytic anaemia. Showing reticular cell (R) and macrophage (M). The arrow indicates haemosiderin in the process connecting the two cells. The darkly coloured material is haemosiderin. Prussian blue and neutral red. X 850. From AE Stuart and AE Davidson. The handling of antigen-antibody complexes and of antigen by human peritonel cells *in vitro*. *Journal of Pathology* 1971 © John Wiley & Sons Limited. Reproduced with permission.

Macrophages rapidly digested yeasts but these were preserved for many days within the reticular cells. This preservation of xenogeneic material was curious especially as these cells contain an abundance of hydrolytic enzymes. We suggested these antigen-storing cells would play a role in the maintenance of a population of committed lymphocytes thus playing a fundamental part in the pathogenesis of certain inflammatory or sclerosing diseases.

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ACKNOWLEDGEMENT
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THE CORE MEDICAL RECORD[1]

Sir,

The editorial, aptly entitled 'seeing the wood and the trees,'[1] would not be complete without mention of the crucial importance of integrating the nursing notes (which also contain documentation by allied health professionals such as physiotherapists and medical social workers) into the main medical record. Without jeopardising the autonomy to which nursing staff so passionately cling, what needs to be agreed is what kind of information is clinically relevant (and, hence, worth documenting) and what needs to be left out, so that the entire healthcare team can the more easily 'see the wood from the trees'. Ready access to such information would be of enormous benefit to geriatricians, in particular, for the purpose of monitoring clinical progress on all fronts (not just in terms of clinical stigmata), and in informing the timing of discharge, either to autonomous living in the community or to a care home for older people.

Final mention also needs to be made about the auditing of discharge summaries, already a source of concern, given the inaccuracies noted in one audit.[2] Many discharge summaries are suboptimal, if not appalling, mainly because of indiscipline in medical record keeping,[1] rendering it more difficult for the author of the discharge summary to identify the wood from the trees. The task is not helped by the disarray in the fabric of the clinical record itself, characterised, in some cases, by torn covers, loose sheets, and, when it comes to reports of expensive and even invasive investigations, 'anything' filed 'anywhere' and 'anyhow'. The temptation, in such cases, is to generate 'any' kind of discharge summary, yet another missed opportunity for continuing professional development.

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