Clinical Paper

Punishment Attacks in Post-Ceasefire Northern Ireland: An Emergency Department Perspective.

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ABSTRACT

Northern Ireland (NI) has been in a post-conflict state for over twenty years. However, injuries sustained during paramilitary Punishment Attacks (PA) remain a common hospital presentation. The aim of this study was to compare the current province-wide frequency and cost with data collected from the same unit in 1994, the end of the so called, "Troubles".

A ten month retrospective emergency chart analysis from all assault and gunshot wound (GSW) attendances to the Emergency Department, Royal Victoria Hospital Belfast (RVH) in 2012 was carried out. Age, sex, injury type, treatment outcome and associated cost of PA was documented. During the study period we recorded a total of thirty two PAs. Twenty seven were the result of gunshot wounds (GSWs), while five were assaults (punishment beatings). Seventeen required admission for definitive management. Nine cases required orthopaedic intervention, two required plastic surgery, two required maxillofacial input and one case required vascular surgery. All but two of those involved were male. Mean age of individuals admitted was 27.47. Total cost of patients both admitted and managed in the Emergency Department (ED) amounted to £91,362. On comparison with 1994, there are more PA presentations. Due to changing wound characteristics and evolving management overall cost is however less.

INTRODUCTION

The 31st of August 1994 saw the first lasting ceasefire of the Provisional Irish Republican Army (PIRA). The gesture was followed by further ceasefires from Loyalist paramilitaries leading to the Good Friday Agreement in 1998. This was set to be the official end of paramilitary violence within Ireland.

Prior to the agreement, a period deemed "The Troubles", paramilitaries imparted their own brand of social justice upon individuals judged to be engaged in antisocial behaviour. Suspected drug dealers, car thieves and those who had attacked paramilitary group members were particularly at risk. Due to-distrust of state security forces¹ their suspected crimes were not reported by official means. Rather individuals were ordered to report to a set location at a set time for a "Punishment Attack" (PA). This usually involved, "kneecapping," a gunshot wound (GSW) discharged into the

lower limb or organised assault with batons. Locally, it was understood that if they failed to report for PA, the individual would face life long eviction from the area or even execution.

A generation has passed since the end of "The Troubles" with a changed political landscape and established peace. The Royal Victoria Hospital in Belfast (RVH), the country's regional trauma centre, is still treating victims of PA on a near weekly basis. In 1994, clinicians within our hospital reported a retrospective analysis of all PA in the ten months before and after the PIRA ceasefire.² The aims of the present study were to see if number, cost and type of PA continues at a comparable rate in a ten month period in 2012, eighteen years after established peace.

METHODS

A 10 month retrospective chart analysis (2012-2013) of all patients admitted to the R.V.H. Belfast, with an assault or GSW coding was carried out. This amounted to approximately 2500 charts. From these we reviewed every record and any associated operative note to delineate PA from other admissions. Specifically, we looked for documentation that the patient's injury was the result of a PA; any close range soft tissue injuries to the lower calves or gang attacks with batons. Patient age, sex, injury type and associated operative intervention on primary admission was documented. For injury type, we looked specifically at location, type of weapon used and number of limbs involved. Patients were then anonymised by age and sex.

Any attacks where direct motivation appeared to be murder e.g. multiple gunshots discharged into the head were excluded. One patient who sustained close range lower limb injury on a shooting range was also discounted.

The financial cost for all 32 (PA) patients was then calculated. This included generic cost of department attendance, bed days

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TABLE 1: Patients Requiring Admission for Punishment Shootings

Age	Sex	Mechanism	Injury Sustained	Outcome	2012 Admission and Intervention Costs
22	Male	4 GSWs bilateral lower limbs	# R tibia with retained bullet # distal left tibia	T&O theatre for wound debridement	£1488
24	Male	Single GSW left foot	Communicated # 3 rd and 4 th metatarsals	T&O theatre for wound debridement	£3862
32	Male	GSW to right knee and left ankle	# Left Talus	T&O theatre for wound debridement and bullet removal	£2262
22	Male	GSW to right thigh and Left Lower leg	Soft Tissue Injury	General Surgery Theatre for Washout	£985
22	Male	GSW left lower Limb	Communicated # left Tibia	External Fixation	£7054
20	Male	GSW L popliteal fossa	Soft Tissue Injury	T&O theatre for Washout	£1211
37	Male	GSW Right Lower Limb	Soft tissue Injury associated Peroneal Nerve Transection	Plastics theatre for Debridement and Nerve repair	£8368
29	Male	4 GSWs bilaterally to Lower Limbs and strike to head with Machete	# Parietal bone with associated subarachnoid haematoma. Soft tissue injury to both lower limbs	T&O theatre for bilateral lower limb debridement and washout	£6152
35	Male	GSW Right Knee	Right knee Articular injury	ORIF medial tibial plateau and femoral condyle	£5474
18	Male	GSW Right Knee	# Prox Tibia	Wash out and casting in A+E	£440
26	Male	Shotgun blast to right thigh	Soft tissue injury with femoral Artery Compromise.	Joint Vascular, T&O and Plastics theatre. Vascular repair, External Fixation and grafting.	£8174
18	Female	GSW to left hand and Left thigh penetrating abdomen	Haemodynamic compromise	General surgery theatre for laparotomy. Left hand exploration	£8474

from primary admission and cost of operative intervention. It did not include cost of any outpatient follow up or additional multidisciplinary input (e.g OT / Physiotherapy). From this we made direct cost comparison from the 1994 Nolan study carried out in the same institution in 1994.

RESULTS

A total of 32 victims of PA attended the ED within the 10 month study period. Of these, 17 required admission for further management, whilst 15 suffered low velocity soft tissue GSWs and were managed in the ED with outpatient review. Twelve of the admissions were secondary to GSWs (Table 1), while 5 were secondary to punishment beatings (Table 2).

A further 15 patients who attended ED with GSW were managed in the department with washout and dressing. This incurred a further total cost of £2,223, an average of £148 per patient, substantially lower than inpatient costs.

Of the total PA admissions, 30 were male and 2 were female. Mean age of punishment beating patients was 35. Mean age of punishment shooting patients was 25. Ten patients required operative orthopaedic invention. Two required plastic surgery for tissue recovery while one required vascular intervention. Of the GSWs, 11 attacks were carried out using low velocity weapons. One attack involved the use of a shotgun (Figures 1 and 2). Seven attacks involved a single bullet while the remaining 5 involved 2 or more. The lower limb was the most commonly affected area - 13 of the 22 admissions.



Table 2: Patients requiring admission for Punishment Beatings

Age	Sex	Mechanism	Injury Sustained	Outcome	Intervention Cost
22	Male	Gang Attack Iron Bars	Head injury requiring intubation	ICU Admission	£2740
38	Male	Gang Attack Iron Bars	Displaced right patellar # Closed bony avulsion left tibia tuberosity. Left mandibular condyle and left maxillary wall & left zygomatic arch #.	T&O theatre: Tension band wiring Right patella Washout/debridement right knee placement pericutaneous screw in left tibial tuberosity	£7555
45	Female	Gang Attack and fall from first floor window	# Right Os Calcis	T&O ORIF	£7879
43	Male	Gang Attack with batons	# Zygoma	MaxFax Theatre for fixation	£3150
31	Male	Gang Attack with hammers	# Right fibula, # Left 9th and 10th ribs, # Right Zygomatic Arch, # L4	MaxFax Theatre for Fixation	£8939



Fig 1. X-ray appearance of a shotgun wound to the leg.

The study population totalled one more victim than recorded in the 10 months preceding the 1994 ceasefire and 4 more than immediately post the 1994 ceasefire (Figure 3).

Adjusting for Bank of England inflation the present day total



Fig 2. In-patient management of the same patient.

cost of all PA in the 10-month period was £91,362. Average PA patient cost overall was £2,855, less than the average 1994 cost of £3,849. If inflation is again included however, 1994 equivalent costs would amount to £6,017 per patient in 2015. Despite comparable numbers of PA , our average spend per patient is substantially lower.

DISCUSSION

Our results show that PAs continue at a significant rate within the province. There has been a return to shooting as the primary means of PA, with an increase in total caseload from 1994. Cost remains a substantial drain on department resources.

On direct comparison, our total £91,362 cost of care is less than both the pre- and post -1994 ceasefire costs (£150,339 and £168,461 respectively). We propose that the changing mode of PA and modern treatment of injuries have produced this change²⁴.



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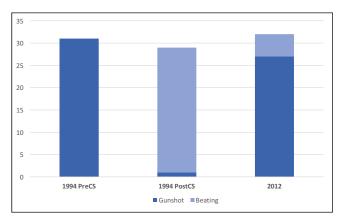


Fig 3. Return to shooting as the commonest mode of punishment attack by 2012

Previous studies have documented a change in the style of PA over the years.²⁻³ "Knee-Capping" was the punishment of choice from the 1950s onwards, typically involving a high velocity round through the knee articulation. Occasionally, this was bilateral and sometimes involved the elbows and ankles, known colloquially as a "Six Pack." Typically, mortality with this technique was high and the functional morbidity in survivors was extreme. As such, this made it unpopular within the local communities the paramilitary groups were supposedly representing. As The Troubles evolved through the 1980's, Republican and Loyalist groupings moved away from this high morbidity approach, with most forms of PA involving low velocity rounds fired through soft tissue of the lower limbs.⁴ This study confirms that "Knee Capping" is a misnomer in modern practice as a minimal number of injuries actually involve the knee articulation.5

Management of PA injuries has also evolved. Byrne et. al 2006 highlighted how superficial injuries not involving vascular or orthopaedic structures can be safely managed in the ED with wound lavage and outpatient follow up. Almost half of our patients (15/32) fell into this category, saving on both bed days and cost.4

The main limitation of this study is that it documents only the primary attendance of those subjected to a PA. Multiple patients included in this study had recurrent attendances to the ED after their initial injury, for associated physical and psychological injury. On combining the physical effects of PA with the psychosocial effects, it is safe to assume that the ongoing total spend on this cohort is far greater than what we have calculated.6

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